ENGINEERING AND MINING JOURNAL.

VOLUME XXVI, JULY TO DECEMBER, 1878.

INDEX.

(Articles marked with a star are illustrated. The reader may further consult the titles under the sub-headings.

A

Abercarne Mine Explosion ... 181
Academy of Sciences, the National, Report on the National Surveys ... 455
Addenda Mine, Cal ... 136
Adlaide Consolidated Silver Mining and Smelting Co., Colo ... 53, 251, 252, 451
African Diamond Diggings ... 350
Africa, Unexplored Portions ... 332
Agates, Colorado ... 207
Age of Car-Wheels ... 406
Air, Compressed-, Cars, Cost of Working Tramways by ... 461
Air Compressors ... 439
Air-Tight and Water-Tight Corks ... 367
Alaska ... 135, 262
Alaska, the Mineral and Agricultural Wealth of ... 100, 134
Albemarle and Chesapeake Canal Co ... 350
Albert Nyanza, Lake ... 254
Algonquin Mine, Mont ... 63
Alice Mining Company's Mill ... 63
Allentown Iron Company ... 379
Allentown Iron Company, Suspension of ... 350
Allotropic Copper ... 7
Allotropic Lead ... 82
Almaden Mines ... 224
Alphabet, Letters of, used in Printing ... 244
Alpha Gold and Silver Mining Co., Nev., 125, 233, 341, 359, 377, 395, 414, 430, 450, 468
Alpha-Imperial ... 359, 395
Alps Mine, Colo ... 208, 404
Alta Mine, Mont ... 262
Alta Mining Co., 125, 226, 269, 298, 316, 359, 375, 377, 393, 395, 407, 414, 430, 451, 468
Altoona Coal and Iron Company ... 134
Aluminium Bronze ... 364
Amalgamation *versus* Leaching ... 217, 219
*Amalgamator, Foster-Firmin ... 310
Amber Varnish ... 444
American Antiquities ... 347
American Bessemer Works, Progress in ... 91
American Consolidated Gold and Silver Mining Co., its Stock struck from the List of the Mining Stock Board, New York ... 305, 413
American Flag Mine, Dak ... 209
American Flag Gold Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
American Graphite Company ... 308
American Gold Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 161, 179, 215, 251, 267, 287, 303, 305, 451
American Institute of Mining Engineers ... 145, 217, 235
American Locomotive's Tour through Europe ... 350
American Machinery at the Exhibition ... 77
Ammonia Process of Soda Manufacture ... 420
Andrews, Edward R ... 344
Aniline-Black ... 418
Animas Forks Mining Co., Colo ... 190
Answers to Metallurgical Queries ... 443
Anthracite Coal in Arizona ... 346
Anthracite Coal, Sonora ... 458
Anthracite Coal Trade, Present and Future of the ... 117
Anthracite Coal Trade Review of 1878 ... 432
Anthracite, Peculiar Variety of ... 293
Antimony ... 346
Antimony as a Negative Element ... 100
Antiquities, American ... 347
Argenta Mining Co., 269, 288, 305, 341, 359, 377, 395, 430
Argentine Mine, Colo ... 242
Argyle Placer District, Idaho ... 81, 82
Arizona ... 81, 225, 262, 279
Arizona, Anthracite Coal in ... 346
Arsenic ... 346
Arsenious Acid, Volatilization of ... 422
Artesian Wells ... 100
Artificial Production of Precious Stones ... 380
Asbestos for Pipe-Coverings ... 443
Assay Department ... 64, 83, 137, 155, 445
Assay Office, New York ... 49
Assay Office, New York, Business for Sept., 248; Oct., ... 320
Assay Office Business, U. S., July, 104; August, ... 177
Atchison, Topeka & Santa Fé RR., Colo ... 154, 155, 172, 208
Atchison, Topeka & Santa Fé Railroad Extension ... 100
Atmospheric Electricity ... 347, 363
Auriferous Cement Mill, Cal ... 99
Auriferous Deposits of Guatemala ... 351
Aurora Tunnel, Cal ... 453
Australia, World's Fair ... 315
Avalanches ... 348

B

Balanced Slide-Valves ... 381
Balata, a Substitute for Gutta-Percha ... 82
Bald Mountain Explored ... 55
Bald Mountain Gravel Mining Co., Cal ... 422
Baldwin Locomotive Works ... 224
Balloon, the Paris ... 419
Balsam, Canadian, for Varnish ... 367
Baltimore, Electric Light Company at ... 368
Baltimore. *See* Coal Trade Review *and* Iron Market Review
Banca Tin Mines ... 333
Bankruptcy of the Union Consolidated Mining Co., Tenn ... 148
Bannock Mine, Idaho ... 423
Barcenite ... 350
Bar, Defined ... 62
Bar-Silver, Price per Ounce ... 265
Base Coinage, Our ... 427
Bassick Mine, Colo ... 154, 172, 260
Battery, New ... 171
Baxter Mine, Colo ... 154
Bay State Mine, Colo ... 260
Bear Butte District Mines ... 172
Beardsly Mine, Cal ... 99
"Bearing" the Bonanzas ... 352
Bear Paw Gold Excitement, etc. 64, 78, 100
Bechtel Gold Mining Co, 136, 143, 233, 269, 288, 305, 430, 453
Bechtel Mill, Cal ... 99
Bees, Industry of ... 259
Begole's "Mineral" Farm, Colo ... 382, 404
Belcher Gold and Silver Mining Co., Nev., 17, 107, 125, 172, 191, 233, 267, 298, 395, 450, 464, 468
Belle Isle Mining Co., 269, 288, 305, 341, 377, 430
Bellevue Colliery, Caving in of ... 382
Belmont Mining Co., Nev ... 64, 395, 414
Belvidere Mining Co., Cal., 359, 378, 422, 453
Ben Franklin Mine, Colo ... 443
Benton Mine, Colo ... 223
Benton Mining Co., Nev., 269, 288, 305, 377, 395, 430, 468
Bertha and Edith Gold Mining Co., Va., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 395, 413, 428, 450, 468
Bessemer and Siemens-Martin Steels ... 225
Bessemer Steel, New Uses for ... 406
Best and Belcher Gold and Silver Mining Co., Nev., 125, 197, 198, 233, 341, 377, 395, 414, 430, 451, 453, 468
Bids for Silver Bullion ... 285
Bingham-Highland District, Utah ... 28
Black Hawk Gold Mining Co., Cal., 143, 269, 288, 305, 334, 341, 378, 453
Black Hills ... 172, 191
Black Hills Production for year ending May 15, 1878 ... 10
Black Hills, Dak., Gold, Classified ... 10
Black Jack Mine, Idaho ... 423
Blake *vs.* the Alden Crusher ... 100
Blast-Furnaces, Condition of, Oct. 1st, 1878 ... 351
Blast-Furnaces, Forms and Dimensions of ... 440
Blast, Heavy at Glendon ... 109
Blue Bell Mine, Utah ... 172
Bobtail Mine, Colo ... 9, 154, 278
Bobtail Tunnel Gold Mining Co., Colo., 267, 321, 413, 428
Bodie, Cal ... 348, 420
Bodie, Cal., A Trip to ... 258, 296
Bodie District, Cal., 28, 63, 99, 117, 136, 155, 172, 191, 209, 244, 280, 316, 333, 334, 369, 388, 406, 453
Bodie Gold Mining Co., Cal., 99, 136, 143, 155, 180, 191, 209, 216, 225, 233, 251, 262, 269, 280, 287, 288, (history of) 296, 316, 334, 341, (its geology) 348, 359, 369, 377, 378, 395, 406, 428, 430, 453, 468, 470
Bodie Mine, Bullion Yield ... 159, 248
Boiler Iron, Testing ... 351
Boilers, Feeding Apparatus for ... 444
Bonanza Suits ... 430
Bonanza Tunnel, Colo ... 190
Bookbindings, Effect of Electric Light on ... 368
Bookbindings, Effect of Gas on ... 368
Booker Consolidated Mining Co., Cal., 269, 288, 453
Book-Making, A Curiosity in ... 350
Books Received ... 41, 76, 128, 201, 416
Borax Combination, A ... 134
Boston and Colorado Smelting Co ... 9, 27
Boston Mining Co., Colo ... 234
Boston. *See* Coal Trade Review.
Bouillard, M ... 400
Boulder County, Colo ... 135
Boulder County, Colo., Bullion Shipments ... 260
Boulder Nest Mine, Colo ... 223
Boulder Water-Works, Colo ... 97
Boussingault on the Cow-Tree ... 368
Boyd's Smelting Works, Colo ... 260
Brazil, Mining in ... 350
Brewster Reduction Furnace ... 10, 45
Bridge, East River ... 244
Bridges, French ... 28
Bridges Made from Old Rails ... 383
Briggs Mine, Colo ... 9, 208
Briquettes (Patent Fuel), Manufacture of, in the Aachen District ... 168
British Association ... 81
British Capital ... 55
British Columbia Coal-Fields ... 206
British Columbia Gold Mines ... 235
British Columbia Public Lands ... 125, 251
British Guiana, Gold Deposits ... 100
British Iron and Steel Institute ... 136
British Mining Statistics ... 145
Bronze Coins of France ... 123
Bronze, Colossal ... 297
Brooklyn Electric Light Company ... 462
*Brown Caloric Engine ... 349
Brown, J. R ... 399
*Brown's Rock-Breaker and Ore-Crusher ... 184
Bruce Mine, Cal ... 99
*Brush Dynamo-Electric Machine ... 240
Brush Machine in a Cotton-Mill ... 421
Buckeye Engine Co., O ... 224
Buckeye Mine, Colo ... 154
Buckeye Mining and Tunneling Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 161, 178, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 395, 428, 450, 468
Buell Mine, Colo ... 404
Buffalo. *See* Coal Trade Review *and* Iron Market Review.
Bullion, Bonanza Yield ... 141
Bullion Club, New York City ... 327, 361
Bullion from Arizona Mines to Aug. 31 ... 302
Bullion from California Co., Aug ... 266
Bullion from Montana ... 266
Bullion from Plumas-Eureka Mine, Cal ... 285
Bullion from Silver City, Idaho ... 266
Bullion from Silver King Mine ... 159
Bullion from Trojan Mine ... 159
Bullion Gold and Silver Mining Co., Nev., 17, 233, 359, 377, 395, 413, 414, 430, 450, 468
Bullion Gold for Coinage ... 285
Bullion, Gold, Purchase in Colorado ... 374
Bullion, Gold, Purchase Order ... 302
Bullion Imports and Exports from Great Britain ... 392
Bullion Market, *from November 30th* (p. 392) ... Weekly.
Bullion Movement, English ... 141
Bullion Product, August, Ariz ... 280
Bullion Production near Prescott, Ariz ... 14
Bullion Product, May ... 14
Bullion Product of Eureka District, Nev., Quarter ending Sept. 1 ... 410
Bullion Products of Pacific Coast Mines, Six Months ... 104
Bullion Product, Pacific Coast, 195, 248, 338, 374
Bullion Purchases ... 374
Bullion Receipts, Semi-Annual, San Francisco ... 68
Bullion Shipments, 14, 31, 49, 68, 86, 105, 122, 140
Bullion Shipments, Arizona ... 248
Bullion Shipments, Boulder Co., Colo ... 260
Bullion Shipments, Gilpin Co., Colo., 9, 135, 154, 190, 260, 278
Bullion Shipments to San Francisco ... 266
Bullion Shipments, Union Pacific RR ... 266
Bullion Shipments, Weekly *under* Bullion.
Bullion, Silver, Bids ... 320
Bullion, Silver, Exports from San Francisco ... 213
Bullion, Silver, Offers ... 338
Bullion, Silver, Purchase of ... 427
Bullion, Silver, Regulations for the Purchase of ... 302
Bullion Tax on Lincoln County Mines, Nev ... 195
Bullion, Treasury Purchases ... 411
Bullion Yield, California ... 374
Bullion Yield, Consolidated Virginia ... 374
Bullion Yield, Eureka, Nev ... 122
Bullion Yield, Lincoln Gold Mine, Cal ... 141
Bullion Yield, Miner's Delight Mine, Wyoming ... 123
Bullion Yield of Storey Co., Nev ... 410
Bullion Yield, Oneida Gold Mine, Cal ... 141
Bullion Yield, Pacific Coast ... 411
Bullion Yield, Peck Mine, Ariz ... 122
Bulwer Gold Mining Co., California, 143, 269, 288, 305, 359, 378, 395, 414, 422, 430, 453, 468
Bunsen-Kirchhoff Medal ... 350
Burning Green Peat under Boilers ... 129
Busines Depression in Great Britain ... 351
Business Men, To Enterprising ... 289
Business Prospects of the United States ... 431
Butte Region Mills, Mont ... 118
Butterflies, M. Treuvelot's Experiments ... 350

C

Cable, Atlantic, Duplex System ... 350
Caledonia Gold and Silver Mining Co., Nev ... 125, 233, 395, 430, 451, 470
Caledonia Mine, Dak ... 9, 191
Caledonia Tunnel ... 17
California, 27, 63, 99, 117, 136, 155, 172, 191, 209, 225, 244, 262, 280, 316, 333, 370, 388, 406, 422
California Gold and Silver Mining Co., Nev., 17, 34, 52, 71, 89, 107, 125, 143, 144, 161, 179, 197, 198, 215, 226, 233, 251, 267, 269, 287, 303, 321, 341, 357, 359, 375, 378, 393, 413, 414, 428, 430, 450, 451, 468, 470
California Gold Mines ... 374
California Mine, Colo ... 223, 404
California Mine, Utah ... 334
California Mining Co., Bullion Yield ... 266
"Calls," ... 231
Caloric Engine, Brown's ... 349
Camp Bird Mine, Colo ... 53
Canada ... 422
Canadian Phosphate Claims, Prices of ... 28
Canadian Phosphate Lands ... 350
Canals, Closing of Navigation on ... 380
Canal, Darien ... 383
Canal, Grand, of China ... 219
Capt. Wells Mine, Colo ... 223
Carbonate Discoveries, Colo ... 333
Carbonate Mine, Leadville, Colo ... 428
Carbonate Mine, Colo ... 224
Carbonate Mine, Utah ... 296
Carbonate of Soda, Molten, for Puddling ... 383
Carbonic Oxide, Absorption of, by Living Organisms ... 224
Carbon Lining, New ... 261
Cariboo Quartz Reefs ... 125
Caribou, Colo., 9, 27, 135, 171, 208, 223, 260
Caribou Gold Mines, Nova Scotia ... 172
Caribou Silver Mining Co., Colo ... 451
Carrara Marble Quarries, the ... 28
Car-Wheels, Age of ... 406
Cash Creek Mining Co., Colo ... 260
Cashier Mine, Colo., 27, 135, 154, 190, 208, 223, 260, 404
Cashier Mining Co., Colo., 303, 393, 413, 451
Cassiar Placer and Caribou Quartz Diggings, Brit. Col ... 107
Cassiar Placer Mines, B. C ... 172
Caves of Kentucky ... 347
Caving in of Valuable Coal Mines ... 382
Ceramic Art, Japanese ... 297
Cerro de Pasco Mines, Peru ... 89
*Cerro de Pasco Silver Mines, the, and the Callao, Lima & Oroya Railway of Peru ... 435
Chain Cable, Wire Rope as a Substitute for ... 444
Chaffee, Senator ... 326
Chalk Hills, Nev ... 423
Champion Gold Mining Co., Cal ... 453
Champion Mine, Colo ... 190
Charcoal Manufacture, Possible Economy in ... 293
Charles Dickens Mine, Idaho ... 118
Chattanooga. *See* Iron Market Review.
Cheap Fuel, Economy in the Use of ... 152
Chemical Action, Modern Ideas of ... 326
Chemical Composition of the Gas of the Municipal Gas-Light Company, Report upon the ... 3
Chemical Notes ... 8
Cheshire Copper Mines ... 64
Cheyenne Mine, Dak ... 10
Chicago. *See* Coal Trade Review.
Chicago, Steam-Pipes in ... 406
Chieftain Mine, Colo ... 224
Chilian Coal Mine Explosion ... 399
Chili, Gold in ... 279, 314
Chili, Increase of Gold Production ... 207
Chimneys, Defined ... 61
Chinese as Traders ... 224
Chip, the Philosophy of a ... 463
Chisolm, Alex. R ... 359, 395
Chollar Combination ... 298, 316, 407
Chollar-Potosi Gold and Silver Mining Co., 17, 46, 71, 82, 198, 233, 269, 395, 430, 470
Church, the, in "Stock Deals" ... 305
Cinchona Trees in Java ... 315
Cincinnati Mining Co., Ga ... 296
Cincinnati. *See* Coal Trade Review *and* Iron Market Review.
Clark, R. Neilson ... 326
*Clayton-Steel Air-Governor ... 188
Clear Creek County, Colo ... 9, 135, 153
Cleopatra's Needle ... 152
Cleopatra's Needle, Stability of ... 422
Cleveland Gold Mining Co., Colo ... 321, 428
Cleveland. *See* Iron Market Review.
Clifton Coal Co., W. Va ... 119
Clifton Copper Mine, Ariz ... 225
Clock Dials, Luminous ... 380
Coal, American, in Italy ... 119
Coal, American, in Spain ... 20

ENGINEERING AND MINING JOURNAL.

VOLUME XXVI, JULY TO DECEMBER, 1878.

INDEX.

(Articles marked with a star are illustrated. The reader may further consult the titles under the sub-headings.

A

Abercarne Mine Explosion ... 181
Academy of Sciences, the National, Report on the National Surveys ... 455
Addenda Mine, Cal ... 136
Adlaide Consolidated Silver Mining and Smelting Co., Colo ... 53, 251, 252, 451
African Diamond Diggings ... 350
Africa, Unexplored Portions ... 332
Agates, Colorado ... 207
Age of Car-Wheels ... 406
Air, Compressed-, Cars, Cost of Working Tramways by ... 461
Air Compressors ... 439
Air-Tight and Water-Tight Corks ... 367
Alaska ... 135, 262
Alaska, the Mineral and Agricultural Wealth of ... 100, 134
Albemarle and Chesapeake Canal Co ... 350
Albert Nyanza, Lake ... 254
Algonquin Mine, Mont ... 63
Alice Mining Company's Mill ... 63
Allentown Iron Company ... 379
Allentown Iron Company, Suspension of ... 350
Allotropic Copper ... 7
Allotropic Lead ... 82
Almaden Mines ... 224
Alphabet, Letters of, used in Printing ... 244
Alpha Gold and Silver Mining Co., Nev., 125, 233, 341, 359, 377, 395, 414, 430, 450, 468
Alpha-Imperial ... 359, 395
Alps Mine, Colo ... 208, 404
Alta Mine, Mont ... 262
Alta Mining Co., 125, 226, 269, 298, 316, 359, 375, 377, 393, 395, 407, 414, 430, 451, 468
Altoona Coal and Iron Company ... 134
Aluminium Bronze ... 364
Amalgamation *versus* Leaching ... 217, 219
*Amalgamator, Foster-Firmin ... 310
Amber Varnish ... 444
American Antiquities ... 347
American Bessemer Works, Progress in ... 91
American Consolidated Gold and Silver Mining Co., its Stock struck from the List of the Mining Stock Board, New York ... 305, 413
American Flag Mine, Dak ... 209
American Flag Gold Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
American Graphite Company ... 308
American Gold Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 161, 179, 215, 251, 267, 287, 303, 305, 451
American Institute of Mining Engineers ... 145, 217, 235
American Locomotive's Tour through Europe ... 350
American Machinery at the Exhibition ... 77
Ammonia Process of Soda Manufacture ... 420
Andrews, Edward R ... 344
Aniline-Black ... 418
Animas Forks Mining Co., Colo ... 190
Answers to Metallurgical Queries ... 443
Anthracite Coal in Arizona ... 346
Anthracite Coal, Sonora ... 458
Anthracite Coal Trade, Present and Future of the ... 117
Anthracite Coal Trade Review of 1878 ... 432
Anthracite, Peculiar Variety of ... 293
Antimony ... 346
Antimony as a Negative Element ... 100
Antiquities, American ... 347
Argenta Mining Co., 269, 288, 305, 341, 359, 377, 395, 430
Argentine Mine, Colo ... 242
Argyle Placer District, Idaho ... 81, 82
Arizona ... 81, 225, 262, 279
Arizona, Anthracite Coal in ... 346
Arsenic ... 346
Arsenious Acid, Volatilization of ... 422
Artesian Wells ... 100
Artificial Production of Precious Stones ... 380
Asbestos for Pipe-Coverings ... 443
Assay Department ... 64, 83, 137, 155, 445
Assay Office, New York ... 49
Assay Office, New York, Business for Sept., 248; Oct., ... 320
Assay Office Business, U. S., July, 104; August, ... 177
Atchison, Topeka & Santa Fé RR., Colo ... 154, 155, 172, 208
Atchison, Topeka & Santa Fé Railroad Extension ... 100
Atmospheric Electricity ... 347, 363
Auriferous Cement Mill, Cal ... 99
Auriferous Deposits of Guatemala ... 351
Aurora Tunnel, Cal ... 453
Australia, World's Fair ... 315
Avalanches ... 348

B

Balanced Slide-Valves ... 381
Balata, a Substitute for Gutta-Percha ... 82
Bald Mountain Explored ... 55
Bald Mountain Gravel Mining Co., Cal ... 422
Baldwin Locomotive Works ... 224
Balloon, the Paris ... 419
Balsam, Canadian, for Varnish ... 367
Baltimore, Electric Light Company at ... 368
Baltimore. *See* Coal Trade Review *and* Iron Market Review
Banca Tin Mines ... 333
Bankruptcy of the Union Consolidated Mining Co., Tenn ... 148
Bannock Mine, Idaho ... 423
Barcenite ... 350
Bar, Defined ... 62
Bar-Silver, Price per Ounce ... 265
Base Coinage, Our ... 427
Bassick Mine, Colo ... 154, 172, 260
Battery, New ... 171
Baxter Mine, Colo ... 154
Bay State Mine, Colo ... 260
Bear Butte District Mines ... 172
Beardsly Mine, Cal ... 99
"Bearing" the Bonanzas ... 352
Bear Paw Gold Excitement, etc. 64, 78, 100
Bechtel Gold Mining Co, 136, 143, 233, 269, 288, 305, 430, 453
Bechtel Mill, Cal ... 99
Bees, Industry of ... 259
Begole's "Mineral" Farm, Colo ... 382, 404
Belcher Gold and Silver Mining Co., Nev., 17, 107, 125, 172, 191, 233, 267, 298, 395, 450, 464, 468
Belle Isle Mining Co., 269, 288, 305, 341, 377, 430
Bellevue Colliery, Caving in of ... 382
Belmont Mining Co., Nev ... 64, 395, 414
Belvidere Mining Co., Cal., 359, 378, 422, 453
Ben Franklin Mine, Colo ... 443
Benton Mine, Colo ... 223
Benton Mining Co., Nev., 269, 288, 305, 377, 395, 430, 468
Bertha and Edith Gold Mining Co., Va., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 395, 413, 428, 450, 468
Bessemer and Siemens-Martin Steels ... 225
Bessemer Steel, New Uses for ... 406
Best and Belcher Gold and Silver Mining Co., Nev., 125, 197, 198, 233, 341, 377, 395, 414, 430, 451, 453, 468
Bids for Silver Bullion ... 285
Bingham-Highland District, Utah ... 28
Black Hawk Gold Mining Co., Cal., 143, 269, 288, 305, 334, 341, 378, 453
Black Hills ... 172, 191
Black Hills Production for year ending May 15, 1878 ... 10
Black Hills, Dak., Gold, Classified ... 10
Black Jack Mine, Idaho ... 423
Blake *vs.* the Alden Crusher ... 100
Blast-Furnaces, Condition of, Oct. 1st, 1878 ... 351
Blast-Furnaces, Forms and Dimensions of ... 440
Blast, Heavy at Glendon ... 109
Blue Bell Mine, Utah ... 172
Bobtail Mine, Colo ... 9, 154, 278
Bobtail Tunnel Gold Mining Co., Colo., 267, 321, 413, 428
Bodie, Cal ... 348, 420
Bodie, Cal., A Trip to ... 258, 296
Bodie District, Cal., 28, 63, 99, 117, 136, 155, 172, 191, 209, 244, 280, 316, 333, 334, 369, 388, 406, 453
Bodie Gold Mining Co., Cal., 99, 136, 143, 155, 180, 191, 209, 216, 225, 233, 251, 262, 269, 280, 287, 288, (history of) 296, 316, 334, 341, (its geology) 348, 359, 369, 377, 378, 395, 406, 428, 430, 453, 468, 470
Bodie Mine, Bullion Yield ... 159, 248
Boiler Iron, Testing ... 351
Boilers, Feeding Apparatus for ... 444
Bonanza Suits ... 430
Bonanza Tunnel, Colo ... 190
Bookbindings, Effect of Electric Light on ... 368
Bookbindings, Effect of Gas on ... 368
Booker Consolidated Mining Co., Cal., 269, 288, 453
Book-Making, A Curiosity in ... 350
Books Received ... 41, 76, 128, 201, 416
Borax Combination, A ... 134
Boston and Colorado Smelting Co ... 9, 27
Boston Mining Co., Colo ... 234
Boston. *See* Coal Trade Review.
Bouillard, M ... 400
Boulder County, Colo ... 135
Boulder County, Colo., Bullion Shipments ... 260
Boulder Nest Mine, Colo ... 223
Boulder Water-Works, Colo ... 97
Boussingault on the Cow-Tree ... 368
Boyd's Smelting Works, Colo ... 260
Brazil, Mining in ... 350
Brewster Reduction Furnace ... 10, 45
Bridge, East River ... 244
Bridges, French ... 28
Bridges Made from Old Rails ... 383
Briggs Mine, Colo ... 9, 208
Briquettes (Patent Fuel), Manufacture of, in the Aachen District ... 168
British Association ... 81
British Capital ... 55
British Columbia Coal-Fields ... 206
British Columbia Gold Mines ... 235
British Columbia Public Lands ... 125, 251
British Guiana, Gold Deposits ... 100
British Iron and Steel Institute ... 136
British Mining Statistics ... 145
Bronze Coins of France ... 123
Bronze, Colossal ... 297
Brooklyn Electric Light Company ... 462
*Brown Caloric Engine ... 349
Brown, J. R ... 399
*Brown's Rock-Breaker and Ore-Crusher ... 184
Bruce Mine, Cal ... 99
*Brush Dynamo-Electric Machine ... 240
Brush Machine in a Cotton-Mill ... 421
Buckeye Engine Co., O ... 224
Buckeye Mine, Colo ... 154
Buckeye Mining and Tunneling Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 161, 178, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 395, 428, 450, 468
Buell Mine, Colo ... 404
Buffalo. *See* Coal Trade Review *and* Iron Market Review.
Bullion, Bonanza Yield ... 141
Bullion Club, New York City ... 327, 361
Bullion from Arizona Mines to Aug. 31 ... 302
Bullion from California Co., Aug ... 266
Bullion from Montana ... 266
Bullion from Plumas-Eureka Mine, Cal ... 285
Bullion from Silver City, Idaho ... 266
Bullion from Silver King Mine ... 159
Bullion from Trojan Mine ... 159
Bullion Gold and Silver Mining Co., Nev., 17, 233, 359, 377, 395, 413, 414, 430, 450, 468
Bullion Gold for Coinage ... 285
Bullion, Gold, Purchase in Colorado ... 374
Bullion, Gold, Purchase Order ... 302
Bullion Imports and Exports from Great Britain ... 392
Bullion Market, *from November 30th* (p. 392) ... Weekly.
Bullion Movement, English ... 141
Bullion Product, August, Ariz ... 280
Bullion Production near Prescott, Ariz ... 14
Bullion Product, May ... 14
Bullion Product of Eureka District, Nev., Quarter ending Sept. 1 ... 410
Bullion Products of Pacific Coast Mines, Six Months ... 104
Bullion Product, Pacific Coast, 195, 248, 338, 374
Bullion Purchases ... 374
Bullion Receipts, Semi-Annual, San Francisco ... 68
Bullion Shipments, 14, 31, 49, 68, 86, 105, 122, 140
Bullion Shipments, Arizona ... 248
Bullion Shipments, Boulder Co., Colo ... 260
Bullion Shipments, Gilpin Co., Colo., 9, 135, 154, 190, 260, 278
Bullion Shipments to San Francisco ... 266
Bullion Shipments, Union Pacific RR ... 266
Bullion Shipments, Weekly *under* Bullion.
Bullion, Silver, Bids ... 320
Bullion, Silver, Exports from San Francisco ... 213
Bullion, Silver, Offers ... 338
Bullion, Silver, Purchase of ... 427
Bullion, Silver, Regulations for the Purchase of ... 302
Bullion Tax on Lincoln County Mines, Nev ... 195
Bullion, Treasury Purchases ... 411
Bullion Yield, California ... 374
Bullion Yield, Consolidated Virginia ... 374
Bullion Yield, Eureka, Nev ... 122
Bullion Yield, Lincoln Gold Mine, Cal ... 141
Bullion Yield, Miner's Delight Mine, Wyoming ... 123
Bullion Yield of Storey Co., Nev ... 410
Bullion Yield, Oneida Gold Mine, Cal ... 141
Bullion Yield, Pacific Coast ... 411
Bullion Yield, Peck Mine, Ariz ... 122
Bulwer Gold Mining Co., California, 143, 269, 288, 305, 359, 378, 395, 414, 422, 430, 453, 468
Bunsen-Kirchhoff Medal ... 350
Burning Green Peat under Boilers ... 129
Busines Depression in Great Britain ... 351
Business Men, To Enterprising ... 289
Business Prospects of the United States ... 431
Butte Region Mills, Mont ... 118
Butterflies, M. Treuvelot's Experiments ... 350

C

Cable, Atlantic, Duplex System ... 350
Caledonia Gold and Silver Mining Co., Nev ... 125, 233, 395, 430, 451, 470
Caledonia Mine, Dak ... 9, 191
Caledonia Tunnel ... 17
California, 27, 63, 99, 117, 136, 155, 172, 191, 209, 225, 244, 262, 280, 316, 333, 370, 388, 406, 422
California Gold and Silver Mining Co., Nev., 17, 34, 52, 71, 89, 107, 125, 143, 144, 161, 179, 197, 198, 215, 226, 233, 251, 267, 269, 287, 303, 321, 341, 357, 359, 375, 378, 393, 413, 414, 428, 430, 450, 451, 468, 470
California Gold Mines ... 374
California Mine, Colo ... 223, 404
California Mine, Utah ... 334
California Mining Co., Bullion Yield ... 266
"Calls," ... 231
Caloric Engine, Brown's ... 349
Camp Bird Mine, Colo ... 53
Canada ... 422
Canadian Phosphate Claims, Prices of ... 28
Canadian Phosphate Lands ... 350
Canals, Closing of Navigation on ... 380
Canal, Darien ... 383
Canal, Grand, of China ... 219
Capt. Wells Mine, Colo ... 223
Carbonate Discoveries, Colo ... 333
Carbonate Mine, Leadville, Colo ... 428
Carbonate Mine, Colo ... 224
Carbonate Mine, Utah ... 296
Carbonate of Soda, Molten, for Puddling ... 383
Carbonic Oxide, Absorption of, by Living Organisms ... 224
Carbon Lining, New ... 261
Cariboo Quartz Reefs ... 125
Caribou, Colo., 9, 27, 135, 171, 208, 223, 260
Caribou Gold Mines, Nova Scotia ... 172
Caribou Silver Mining Co., Colo ... 451
Carrara Marble Quarries, the ... 28
Car-Wheels, Age of ... 406
Cash Creek Mining Co., Colo ... 260
Cashier Mine, Colo., 27, 135, 154, 190, 208, 223, 260, 404
Cashier Mining Co., Colo., 303, 393, 413, 451
Cassiar Placer and Caribou Quartz Diggings, Brit. Col ... 107
Cassiar Placer Mines, B. C ... 172
Caves of Kentucky ... 347
Caving in of Valuable Coal Mines ... 382
Ceramic Art, Japanese ... 297
Cerro de Pasco Mines, Peru ... 89
*Cerro de Pasco Silver Mines, the, and the Callao, Lima & Oroya Railway of Peru ... 435
Chain Cable, Wire Rope as a Substitute for ... 444
Chaffee, Senator ... 326
Chalk Hills, Nev ... 423
Champion Gold Mining Co., Cal ... 453
Champion Mine, Colo ... 190
Charcoal Manufacture, Possible Economy in ... 293
Charles Dickens Mine, Idaho ... 118
Chattanooga. *See* Iron Market Review.
Cheap Fuel, Economy in the Use of ... 152
Chemical Action, Modern Ideas of ... 326
Chemical Composition of the Gas of the Municipal Gas-Light Company, Report upon the ... 3
Chemical Notes ... 8
Cheshire Copper Mines ... 64
Cheyenne Mine, Dak ... 10
Chicago. *See* Coal Trade Review.
Chicago, Steam-Pipes in ... 406
Chieftain Mine, Colo ... 224
Chilian Coal Mine Explosion ... 399
Chili, Gold in ... 279, 314
Chili, Increase of Gold Production ... 207
Chimneys, Defined ... 61
Chinese as Traders ... 224
Chip, the Philosophy of a ... 463
Chisolm, Alex. R ... 359, 395
Chollar Combination ... 298, 316, 407
Chollar-Potosi Gold and Silver Mining Co., 17, 46, 71, 82, 198, 233, 269, 395, 430, 470
Church, the, in "Stock Deals" ... 305
Cinchona Trees in Java ... 315
Cincinnati Mining Co., Ga ... 296
Cincinnati. *See* Coal Trade Review *and* Iron Market Review.
Clark, R. Neilson ... 326
*Clayton-Steel Air-Governor ... 188
Clear Creek County, Colo ... 9, 135, 153
Cleopatra's Needle ... 152
Cleopatra's Needle, Stability of ... 422
Cleveland Gold Mining Co., Colo ... 321, 428
Cleveland. *See* Iron Market Review.
Clifton Coal Co., W. Va ... 119
Clifton Copper Mine, Ariz ... 225
Clock Dials, Luminous ... 380
Coal, American, in Italy ... 119
Coal, American, in Spain ... 20

Coal, Anthracite, Trade Review of 1878 432
Coal Company, A Growing 100
Coal Contracts in Belgium 226
Coal-Cutting Machine at Polnisch-Ostrau 417
Coal Discovery at Aurora, Nev. 100
Coal-Dust, French and Belgian 459
Coal-Dust Producing Explosions in Mines 225
Coal Fields of Henry County, Ill. 261
Coal in English Blast-Furnaces 58
Coal Interests, New Brunswick 367
Coal-Mine Explosion in Sullivan, Ind .. 367
Coal-Mine, Knob-Noster, Mo. 9
COAL PRODUCTION, STATISTICS OF..Weekly.
COAL STOCKS..... Weekly.
COAL TRADE REVIEW..... Weekly.
COAL TRANSPORTATION AND GENERAL MINING STOCKS, full-page table...Weekly
Cobalt, Electro-Metallurgy of..... 171
Cobalt Plating..... 136
Coca-Leaves, Miners Chewing..... 444
Coinage of France..... 230
Coinage of the U. S. Mints, August, 177; Sept..... 248
Coinage, Total U. S., Year ending June 30, 1878 13
Coinage, U. S., for the Year 411
Coin and Bullion, Exports and Imports, 140, 248, 339
Coin Carried through the Mails..... 159
Coin in U. S. Treasury..... 32, 177
Coin Resources of the Country..... 392
Coins, Standard, Disposition to Remain in the Vaults..... 86
Coin, Subsidiary..... 426
Cold Spring Mine, Colo..... 27
Colorado, 9, 27, 135, 153, 171, 190, 208, 280, 333, 351, 370, 403, 443
Colorado Central Mine, Colo..... 153
Colorado Coal Mines..... 206
Colorado Mines..... 223, 242, 260, 278
Colorado Mines—The Hukill..... 189
Colorado Railroad Projects..... 451
Colorado Railroads..... 9
Colorado Terrible..... 458
Columbus, O. *See* Iron Market Review.
Combustion, Mode of, in the Blast-Furnace Hearth..... 165, 183
Compass, the..... 462
Composition and Industrial Use of Furnace Gases..... 439
Compressed Air, Further Improvements in the Utilization of..... 64
Compressed-Air Locomotives for Mines 168
Comstock Mine Managers—How they Honor their "Trust"..... 379
Comstock Mine Management, the Latest Move in..... 343
Comstock Mines, List of..... 267
Comstock Mines, the Heat of the..... 456
Comstock Notes..... 241
Comstock Panic, the Latest..... 361
Conciliation and Arbitration 109
Concrete Bridges..... 82
*Cone Pulleys, Laying out 221
Congress on Coins, Weights, and Measures..... 177
Consolidated Bobtail Mine, Colo., 135, 208, 260
Consolidated Imperial Gold and Silver Mining Co., Nev, 17, 125, 144, 161, 197, 215, 233, 251, 267, 269, 341, 375, 377, 378, 430
Consolidated Pacific Gold Mining Co., Cal. 280, 316, 369, 378, 453, 470
Consolidated Virginia Gold and Silver Mining Co., Nev., 17, 34, 52, 53, 71, 82, 89, 107, 125, 143, 144, 161, 179, 197, 198, 215, 226, 231, 233, 251, 267, 269, 287, 303, 321, 357, 359, 370, 393, 413, 414, 428, 430, 450, 451, 468, 470
Contacts, Pressure of, on the Intensity of a Current..... 333
Conundrum 223
Copper, Allotropic..... 7
Copper and Copper Alloys, Hardening of..... 7
Copper Deposits in Pennsylvania..... 244
Copper in Pennsylvania..... 64
Copperopolis Mine, Utah..... 172
Copper Shipments, Portage and Torch Lakes..... 463
Copper-Smelting at Lake Superior..... 329
Copper, the Egyptian Art of Tempering..... 244
Corks, Air-Tight and Water-Tight..... 367
Cornu, A..... 57
Corporations, Pacific Coast..... 463
Corundum and its Gems..... 311
Cotopaxi, Volcano..... 261
Coxe, Eckley B., Address at the Meeting of the American Institute of Mining Engineers..... 272
Cow-Tree..... 368
"Crash" in the Comstocks..... 395
Crescent Mine, Leadville, Colo..... 338
Crematorium near London..... 332
Creosoted Wood..... 73, 345
*Creusot Iron-Works..... 185
Crevice, Defined..... 61
Cristy Mill and Mining Co., Utah..... 334
Croly, D. G..... 399
Crook Brothers..... 179
Cross-Cut Epidemic, the..... 217
Crown Point Gold and Silver Mining Co., 17, 125, 172, 191, 233, 267, 298, 305, 377, 395, 430, 450, 470
Cubing Sugar, Machine for..... 368
Currency and Coins of Denmark..... 32
Currency, Curiosities of..... 461
Custer County Tunnel, Colo..... 443
*Cut-off, Improved Variable Automatic..... 220
Cutting Rails..... 225
Cyclops Mine, Colo..... 154, 171
Cymbeline Mine, Colo..... 443

D

Dahlonega Gold Mining Co., Ga., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 296, 303, 321, 341, 357, 375, 395, 413, 428, 450, 468
Dakota..... 9, 172, 209, 370, 445
Dallas Gold and Silver Mining Co., Colo..... 234
Dardanelles and Oro Placer Claims, Cal 15, 215, 251
Dardanelles Consolidated Mining Co... 251
Darien Canal..... 383
Darien Ship-Canal..... 94
Date Palm..... 297
Daubreelite 350
Deer Creek Mine, Cal..... 118
Delaware and Raritan Canal, Break in the 28
Delaware Ship-Canal..... 184
Delbecque, M., Director of the Mint, Bordeaux, Arrested..... 410
Denver & Rio Grande Railroad, Colo., 172, 297
*Desilvering and Refining Lead Base Bullion by Electrolysis..... 28
Detective, a New 445
Diamond-Cutting, American..... 225
Diamond-Digging, Cost of..... 119
Diamond Diggings in Africa..... 350
Diamond Mine, Colo..... 223
Diamond Mine, Scranton, Pa., Caving in of..... 261
Dives Mine, Colo..... 223
Dollars, Tardy Circulation 140
Dolly Varden Mine, Colo..... 172, 280
*Domestic Motors..... 365
Double Decker Mine., Colo..... 451
Double Standard Mining Co., Cal..... 316
Drainage of New Jersey Lands..... 348
*Drain-Pipe, Manufacture of..... 419
Drift, defined..... 62
Drift, Terraces, and Buried Valleys, Pennsylvania..... 309
Drill, Three-square..... 297
Driving-Wheels on Pennsylvania Railroad..... 297
Dudley Gold Mining Co., Cal..... 378, 453
Duncan Silver Mining Co., Ont., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 405, 413, 422, 428, 450, 468
Dunkirk Mine, Colo..... 223
Duplex System on Atlantic Cable..... 350
Duplex Transmission, New Mode of.... 166
Durango Mine, Dak..... 10
Dynamo-Electric Machine, Brush..... 240

E

Eagle Gold Mining Co., Stafford Co., Va..... 428, 453
Earth-Currents..... 4
Earth Elevations and Depressions, Ingenious Illustration of..... 329
Earth, Planets to which it is Visible.... 421
Earthquake Statistics..... 171
East Bobtail Mine, Colo..... 260
Edison Light..... 369
Edison Light, London..... 405
*Edison Micro-Tasimeter..... 186
Edison, Thomas Alva..... 131
Edison's Claim to an English Patent Secured..... 445
Edison's Light, How Produced..... 445
*Edison's Telephonic Researches..239, 258
Edmunds's Phonoscope..... 207
Education in Japan..... 332
Edward Everett Mine, Colo..... 27, 223
Electrical Brevities..... 329
Electricity, Atmospheric..... 347, 363, 381
Electricity, Atmospheric, Influence of, on Vegetation..... 224
Electricity in the Arts 406
Electricity, Railway Block-Signaling by..... 462
Electric Current, Subdivision of..... 405
Electric Experiments..... 421
Electric Light..... 171, 369, 382, 418
Electric Light, Adoption of..... 421
Electric Light and Heating-Gas 379
Electric Light at the Gaiety Theater, London..... 170
Electric Light, Billingsgate Fish Market, London..... 382
Electric Light, Brooklyn..... 369
Electric Light by Incandescence..... 462
Electric Light, Capitol at Washington. 369
Electric Light, Color of the..... 445
Electric Light Company, Baltimore.... 368
Electric Light Company, Brooklyn, N. Y..... 462
Electric Light, Division of the..... 445
Electric Light, English Patent-Office... 405
Electric Light, Gas Interest Abroad... 369
Electric Light in Agriculture..... 269
Electric Light in Factories..... 382
Electric Light in 1859..... 421
Electric Light in Mines..... 369
Electric Light in Theaters, London.... 382
Electric Light, Invention..... 369
Electric Light, New Applications of... 207
Electric Light, Otto Silent Gas-Engine. 382
Electric Light, Prof. Charles A. Seeley's Paper on..... 421
Electric Light Put Out..... 445
Electric Lights at Sea..... 297
*Electric Light, the, in Mines, Factories, etc..... 442
Electric Light, Wendermann..... 405
Electric Lighting..... 369, 405, 461
Electric Lights, Uniformity in..... 405
Electric Notes..... 421
Electric-Spark Pen..... 462
Electric Sparks..... 188
*Electro-Metallurgy of Lead, Some Experiments and Deductions in..... 59
Elevated Railroad in Philadelphia..... 420
Elk Creek Camp, Dak 10
Emissive Power and the Different Kinds of Heat of Certain Bodies at 100° ... 119
Empire Ditch and Placer Co., Colo..... 154
Empire Gold Mining Co., Cal..321, 377, 450
Empire Mill Co..... 17
Empire Mine, Colo..... 260
Empire Mining and Milling Co., Utah. 287
Endowment Mining Co...269, 288, 305, 359
Engineering and Mining Journal for 1879..... 431, 444
Engineering und Mining Journal, das, für 1879..... 438
Engineers, Civil, American Society of. 344
Engineers' Club of Philadelphia..274, 345
England, Labor Troubles in..... 367
English Capital..... 279
E Pluribus Unum Mine, Colo..... 172
Equator Mine, Colo..... 153
Ericsson's Torpedo..... 207
Etna, Mount, Observatory..... 400
Eureka Consolidated Gold, Silver, and Lead Mining Co., Nev., 46, 53, 64, 71, 89, 99, 107, 125, 161, 162, 179, 198, 216, 233, 251, 269, 288, 321, 341, 359, 375, 377, 393, 395, 430, 451, 468, 470
Eureka District, Nev..... 64
European Piracy of American Mechanical Principles 368
Ewing's Lixiviation Works, Colo..... 279
Exchequer Gold and Silver Mining Co., Nev..... 233, 251, 395, 430, 451
Exhibition, Mexican..... 421
Exhibitors, American, at Paris, Success of..... 277
Explosion, Abercarne Mine..... 181
Explosion at the Rend-Rock Powder Works..... 6
Explosion, Coal-Mine, in Sullivan, Ind. 367
Explosion, Coal-Mine, Another English..... 100
Explosion, Fatal, in a Chilian Coal Mine..... 399
Explosion of Gas at Prospect Shaft, Pa. 292
Explosions, Mill, a New Theory of..... 82
Explosion, Powder, Russia..... 100
Exports..... 444

F

Failure, Heavy, in the Boston Coal Trade..... 297
Failures of Coal and Furnace Companies..... 100
Fair, James G 326
Fairview Mining Co., Dak..... 9
Famine in Northern China..... 134
Fancies at the New York Stock Board. 305
Fannie Mine, Colo 171
Father De Smet Co., Dak..... 445
Father De Smet Mill, Dak..... 10
Father De Smet Mine, Dak..... 10, 172
Feed-Water, Heating, by Exhaust Steam..... 330
Fidelity Mining Co., Colo..... 305
File Manufacture, American..... 261
*Files..... 328
FINANCIAL..... Weekly
Findley Gold Mining Co., Ga., 71, 197, 215, 233, 243, 251, 267, 287, 296, 303, 321, 341, 357, 370, 375, 393, 413, 428, 450, 468
Fire-Damp Explosion in Pennsylvania. 363
Fires, Steam-Boiler..... 365
Flame, Non-Transparency of..... 406
Flood, J. C..... 395
Flood & O'Brien..... 413
Florida Mountain Discoveries, Idaho... 81
Flowery Mining Co., Nev..... 396
Foreign Coins, Circulation of, in the U. S 213
Forests, Protection and Perpetuation of..... 149
Forks Mine, Colo..... 190
Forms and Dimensions of Blast-Furnaces..... 440
*Forster-Firmin Amalgamator..... 310
Fortunes, How Made, in San Francisco. 182
Free America Mine, Colo..... 223
Freeland Mine, Colo 153
Freight Rates on Iron Ore and Pig-Iron..... 463
FREIGHTS..... Weekly
French Bridges..... 28
French Statistics for 1878 422
French Tramway..... 421
Friction of Water in Pipes..... 164
Frisco District, Utah..... 28
Frisco Reduction Works, Utah..... 28
Frostburg Mine, Colo..... 223
Fryer Process Redivivus..... 95
Fuel of the Future, the, in Europe..... 289
Furnace—Bellefonte, 8; Laurel, 8; Warwick, 8
Furnace, First 237
Furnace for Mercury Ores, A New..... 80
Furnace Gases, Composition and Industrial Use of..... 439
Furnace, Smoke-Burning..... 422
Furnaces, Pennsylvania, in and out of Blast..... 8
Furness Iron and Steel Company..... 367

C

Gadalinite..... 28
Galena Mine, Nev..... 136
Gallium..... 348
Gallium and Aluminium Alloys..... 80
Garden City Hydraulic Co., Dak..... 9
Gas, Effect of, on Bookbindings..... 368
*Gas-Engines..... 204
Gas Furnace, New, at Couillet Rolling Mills, Belgium..... 165
Gas, Heating-..... 397
Gas, Illuminating, Recents Patents in. 135
Gas in New York, Quality and Comparative Price of..... 128
Gas, Natural..... 297
Gas of the Municipal Gas-Light Company, Report upon the Chemical Composition of the..... 3
Gas, the New York, and the Illuminating-Power Meter..... 254
Gas, vs. Electric Lighting..... 255
Gas-Well, Kansas City..... 9
Gas-Wells..... 297
Gas-Works, Every Man his Own..... 461
Gatling Gold and Silver Mining Co., Ont..... 107
Gaujot, E..... 363
Gelatine, Blasting—A New Explosive.. 271
Gems, Making..... 207
Geological History of New York Island and Harbor..... 393
Geological Maps of Pennsylvania, their Imperfections..... 308-9
Geological Survey of Georgia..... 370
Geology of Bodie, Cal..... 348
Geology Rampant in Colorado..... 325
Georgia..... 370, 445
Georgia Gold-Fields..... 206
Georgia Gold Mines..... 170, 203, 296, 428
Germania District, Dak..... 10
Germany and the Silver Conference... 177
Germany, Salt Deposits in..... 350
Gibraltar Tunnel..... 346
Gilding on Glass..... 132, 383
Gill, Mr..... 326
Gilpin County, Colo..... 278
Gilpin County Mines..... 153
Glasgow Bank, Failure of..... 235
Glass Factory in Philadelphia, Partial Destruction of..... 381
Glass, Gilding on..... 383
Glass, to Drill..... 207
Glass-Works, Ulster..... 380
Glucinium, Atomic Weight of..... 134
Gold Circulation, Immediate..... 49
Gold Deposits, Rich, Discovered in India..... 351
Gold Discoveries, New, in Russia..... 350
Golden Age Mine, Colo..... 9
Golden Star Mine, Dak..... 428
Golden Star Mining Co., Ariz..... 262, 453
Gold Exports from Queensland, Australia..... 68
Gold in Chili..... 314
Gold in Sub-Treasury at San Francisco, 140
Gold in the Leadville (Colo.) Ores..... 441
Gold Mining in Georgia..... 97, 116
Gold Mines of British Columbia..... 235
Gold-Paper, its use in Silk Manufacture in the Middle Ages..... 327
Gold Placer Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 495, 413, 428, 450, 468
Gold Ring Mine, Colo..... 278
Gold? What is..... 100
Gone Abroad Mine, Colo..... 53
Goodshaw Gold Mining Co., Cal., 136, 269, 288, 305, 453
Gould & Curry Gold and Silver Mining Co., Nev., 17, 125, 161, 198, 341, 377, 395, 428, 430, 450, 451, 453, 464, 468, 470
Gouge, Defined..... 62
George Washington Mine, Colo..... 279
Graham, J. T..... 344
Graham Silver Mining Co., Colo..... 279
Grand Prize Mining Co., 89, 125, 143, 161, 197, 198, 216, 233, 244, 251, 269, 288, 305, 341, 359, 377, 393, 395, 413, 428, 430, 451, 470
Grand View Mine, Ouray, Colo..... 404
Granville Gold Mining Co., N. C., 15, 143, 161, 179, 197, 233, 251
*Graphite and its Uses 441
Graphite, Dry, for Steam-Cylinders.. 237
Gravities, Specific, Novel and Simple Method of Taking..... 461
Great Bonanza Mine, Utah 382
Great Britain, Business Depression in.. 351
Great Britain's Mineral Production in 1877..... 235
Greenbacks as Coin Certificates..... 266
Greenbacks Gold and Silver Mining Co. 17
Green, Prof. David M 181
Green Pond Iron Mining Company..... 224
Guadaloupe Mines, the Title to the..... 28
Guatemala Railway..... 443
Guatemala, the Auriferous Deposits of, 351
Gunnell Mine, Colo..... 9

H

Hague, Arnold..... 109
Hale & Norcross Gold and Silver Mining Co., Nev., 17, 107, 125, 280, 298, 352, 377, 395, 407, 430, 453, 464, 470
Hamburg Mining Co., 99, 269, 288, 305, 341, 359, 395, 430, 451, 470
Hamilton, Ont. *See* Coal Trade Review.
Handy & Cronise on the Fidelity Mining Co., Colo..... 305
Hand Ditch, Ga..... 296
Hardening of Copper and Copper Alloys..... 7
Haviland & Co., New York City, Gold Medal Awarded to, by Paris Exhibition..... 350
Hayden's, Prof. F. V., Survey..... 367
Heat Conductivity..... 224
Heat Experiment..... 406
Heating Feed-Water by Exhaust-Steam from Non-Condensing Engines..... 330
Heating-Gas, Better and Cheaper than Steam..... 397
Heat, Internal, of Rocks..... 224
Heat, Mechanical Equivalent of 244
Heat of the Comstock Mines, the..... 456
Heat-Value of Fuel, New Method of Determining..... 97
Hecla Mining Co., Mont..... 316
Heissenbuttel, William..... 344
Hickey Mine, Mont..... 423
Hidden Treasure Gold Mining Co., Dak. 107
Hidden Treasure Mine, Colorado, 9, 135, 190, 223, 404
Highland Mary Mine, Colorado..... 224
Hillside Mining and Milling Co., Nevada 226
Hints to Young Beginners..... 1, 2
Holly System at Springfield, Mass..... 346
Homestake Mining Co., Dak., 155, 172, 269, 288, 303, 305, 370, 375, 395, 428, 430, 459
Homogeneous Cast-Steel..... 150
Hope Mining Company's Mill..... 63
Horicon and Champlain..... 307, 343
Horicon Iron Company..... 308
Horn-Silver Mine, Utah..... 382
Horse-Shoe Gulch, Colo..... 171
Hudson and East Rivers, Uniting the.. 100
Hudson River Tunnel..... 137
*Hughes Microphone..... 186
Hukill Gold and Silver Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 153, 161, 190, 197, 215, 233, 251, 267, 269, 287, 321, 341, 357, 375, 393, 413, 428, 450, 451, 468
Human Race, a True History of the... 367
Humboldt Mine, Colo..... 443
Humboldt on the Cow-Tree..... 368
Hungarian Tunnel, the Great..... 460
Hunt, T. Sterry..... 344

Hurting the Colt's Back..... 44
Hussey Mining Co., Nev., 215, 226, 233, 244, 251, 267, 269, 287, 288, 303, 305, 321, 341, 357, 428, 451, 470
*Hydraulic Fire-Escape and Extinguisher, Gerard & Turnbull's..... 150
*Hydraulic Ram, Montgolfier..... 294
Hydraulics..... 383

I

Ice not Purified by Freezing..... 350
Idaho..... 81, 118, 422
Idaho Mine, Cal..... 226
Illuminated Tower Clock..... 152
Illuminating-Power Meter and the New York Gas..... 254
Immigration Statistics..... 350
Imperial Mining Co.....269, 359
Imports and Exports.....259, 444
Improved Tripod Heads..... 117
Incandescence, Electric Light by..... 462
Incombustible Woven Fabrics..... 333
Indelible Pencil-Marks..... 333
Independence Mining Co., Nev., 197, 215, 226, 233, 244, 251, 267, 269, 287, 288, 303, 305, 321, 341, 357, 359, 375, 393, 395, 413, 428, 450, 468, 470
India, Gold Deposits in..... 351
Indianapolis. *See* Coal Trade Review.
Indian Railways..... 443
Industrial Troubles, British..... 205
Industries of Chattanooga..... 73
Ink that can not be Erased..... 367
Institute Excursions..... 307
International Congress of Hygiene.... 170
International Silver Mining Co., Ont., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 405, 413, 428, 450, 468
International Union, Meeting of..... 207
Inventions, Prizes for..... 438
Investments, Mining, Growing Interest in..... 271
Irisation..... 238
Iron and Steel, Phosphorus in..... 4
Iron and Steel Works, St. Alban's, Vt., Attached..... 350
Iron, Colorado, Lake Superior, New York, Ohio, Tennessee..... 462
Iron Market Review.....Weekly
Iron-Masters' Association, German.... 261
Iron Mine, Colo.....369, 370
Iron Mines and Furnaces..... 153
Iron Mine, Escanaba..... 8
Iron Mine, l'Anse..... 8
Iron Mine, Marquette..... 8
Iron Mine, Menominee..... 8
Iron Mine, Tilly Foster..... 8
Iron Mines, Our..... 8
Iron Mines, Our, and their Products... 462
Iron, Molten, Elimination of Phosphorus from..... 422
Iron Ore Freight Rates..... 463
Iron Ore of North Mountain, Pa..... 439
Iron Railroad Bridge..... 185
Iron Trade, American..... 39
Iron Trade, U. S..... 313
Iron Works..... 405
Iron-Workers' Wages in Scotland, Reduction of..... 167
Isabella Mill and Mining Co., Globe District, Pinal County, Arizona, 305, 323, 377
Isinglass, Vegetable..... 367
Is it One of the Bowerses?..... 19
Italian Oil-Wells..... 315
Ivorine Minerale..... 332
Ivory, Vegetable..... 421

J

Jablochkoff Candles..... 82
Jack Fish Lake Mine, Lake Superior.. 405
Jackson Mining Co..... 288
Japan..... 294
Japan, Coal Fields in..... 332
Japan, Education in..... 332
Japanese Art in Metal..... 10
Japanese Mine Models..... 224
Japanese Railway..... 152
Japan to Absorb More Silver..... 68
Japan, Western Ideas in..... 291
Jefferson County, Colo..... 171
Jetty Channel, the..... 217
Jetties, Mississippi..... 310
Jones Mine, Colo..... 9
Joule, Dr. Prescott, Pension to..... 170
Julia Gold and Silver Mining Co., Nev., 17, 82, 99, 125, 136, 143, 161, 172, 179, 197, 215, 233, 251, 288, 359, 375, 413, 430, 450, 451, 468, 470
Justice Gold and Silver Mining Co., Nev., 46, 53, 71, 125, 144, 359, 395, 430, 451, 468, 470

K

Kanawha Improvements..... 350
Kansas..... 9
Kansas City's Growing Importance as a Coal Center..... 57
Kansas Mine, Colo..... 190
Kearsarge Gold and Silver Mining Co., Utah 296, 451
Keith's New Process..... 37
Kent County Mine, Colo.....9, 27, 190, 404
Kentuck Gold and Silver Mining Co., Colo.....251, 395, 451, 470
Kesler's Peak Mines, Utah..... 382
Kepler and Mars' Satellites..... 422
Keyes, W. S 326, 434
Keystone Gold and Silver Mining Co., Nev..... 34
King's Mountain Gold Mining Co., 34, 46, 52, 143, 161, 215, 233, 251, 428
Kirchhoff Medal..... 350
Kirtley Mine, Colo 153
Kishpaugh Mine Railroad 297
Klamath Quartz Mining Co.....234, 244
"Knocking" in Steam-Engines, Remedies for..... 383
Knowles Pumping Machinery..... 439
Kossuth Consolidated Mining Co., Nev., 215, 233, 251, 267, 269, 287, 303, 305, 321, 341, 357, 413, 428, 450

L

Labor and Wages in Germany..... 10
Labor Notes..... .....62, 98, 464
Labor Party, the, on the Stand..... 110
Labor Question, the, at the Anthracite Mines..... 110
Labor Troubles in England..... 367
Lackawanna Steel Works, Good Work at..... 444
Lacrosse Gold Mining Co., Colo., 15, 27, 34, 52, 71, 89, 107, 125, 143, 154, 161, 179, 215, 233, 251, 267, 287, 303, 321, 341, 357, 375, 395, 413, 428, 450, 468
Lady Bryan Mine, Nev..... 451
Lady Bryan Hoisting Works..... 298
Lady Washington Mining Co.....125, 468
La Fayette Mine, Colo..... 404
Lake City, Colo..... 135
Lake Dwellers..... 279
Lakes, Depths of..... 261
Lake Superior, Copper-Smelting at.... 329
Lake Superior, North Shore, Mining Notes..... 388, 405
La Ligua Gold Mining Co., Chili....179, 197
Lamp..... 405
Last Chance Mine, Utah..... 367
Latin Monetary Union..... 338
Lead as Iodate..... 365
Lead Base Bullion, Desilvering and Refining, by Electrolysis..... 26
Lead Conundrums..... 93
Lead, Electro-Refining of..... 201
Lead or Lode, Defined..... 61
Lead-Poisoning, Prevention for..... 184
*Lead Region of Wisconsin, the, 7, 23, 41, 61, 77, 95, 132, 237
Leadville, Colo., 135, 154, 190, 208, 242, 243, 260, 369, 370 404, 421
Leatheroid..... 345
Leavenworth, Colo..... 443
Leavenworth Mine, Colo.....278, 443
*Lechner Coal-Cutting Machine..... 130
Leeds Mining Co., Utah, 233, 262, 321, 341, 357, 413, 450
Le Fevre, Owen E..... 359
Legal-Tender Dollar, Commercial Position of..... 68
Legal Ton or Bushel, the, of Bituminous Coal..... 46
Leonora Mine, Utah..... 118
Leopard Lead, Gold, and Silver Mining Co., Nev., 143, 161, 251, 269, 305, 393, 470
Leveling Device, New..... 350
Leveling in 1824 and Leveling in 1878. 439
Leverrier, Successor to..... 82
Leviathan Mining Co., Nev., 161, 179, 197, 215, 233, 244, 251, 267, 269, 287, 288, 303, 305, 321, 375, 378, 393, 395, 428, 450, 451, 468, 470
Lick Mineral Railroad, O..... 119
Light, Action of, on Selenium..... 82
Lincoln Gold Mine, Sutter Creek, Cal.. 141
Lithographic Stone in Algeria..... 119
Lithographic Stone in Kentucky..... 332
Little Emma Mine, Colo..... 171
Little Pittsburg Consolidated Mine, Colo..... 404
Little Pittsburg Mine, Colo.....242, 260
Lixiviation in Colorado..... 272
Location of Mining Claims—Square and other Methods Considered..... 331
Locks, American..... 134
Locomotive, American, in Europe..... 350
Locomotives, American, for Australia. 274
Lode or Lead, Defined..... 61
London Gas Supply..... 167
Lone Tree Mine, Idaho..... 423
Loretta Mine, Colo.. 223
Loud Mine, Ga..... 243
Louisville. *See* Coal Trade Review *and* Iron Market Review.
Lounsbery & Hagin..... 379
Lowe and the Strong Gas, the..... 163
Lowe Gas at Baltimore.....219, 236
Lumber in the United States 418

M

Machinery, Strong, the Value of..... 112
Mackey, J. W..... 252
Magnetic Iron Ore, Self-Fluxing..... 10
Magnetism, the Earth's..... 261
Magnèto-Electric Lead-Refining Process..... 181
Maine Mine, Colo..... 443
Malachite Copper Works, Colo..... 280
Mallett Reduction Works, Cañon City, Colo..... .....170, 190
Mammoth Mine, Cal..... 99
Mammoth, Remains of, in the Old World and the New..... 309
Man, Remains of, in the Old World and the New..... 309
Manganese..... 171
Manganese, Blue Color..... 332
Manhattan Silver Mining Co., Nev., 99, 100, 136, 216, 244, 269, 288, 305, 341, 359, 377, 430, 451, 470
Maps of Mining Districts..... 55
Mariposa Common, Cal 303
Mariposa Land and Mining Co., Cal., 125, 251, 303
Market, New, for Silver Coins..... 68
Mars' Satellites..... 422
Martin White Mining Co., Nev 396, 430
Maryland Institute..... 136
Mastodon Tunnel, Colo..... 190
Matthews, Morris & Co., Georgetown, Colo..... 153
May Belle Mining Co..... 378
Mayflower Mine, Colo..... 404
McClinton Gold Mining Co., Cal., 136, 148, 267, 269, 288, 305, 378, 453
McCrackin Consolidated Mining Co., Ariz..... .....143, 269, 470
McHenry Mine, Utah. 118
McKee, Sam, the pioneer "put and call" man, in San Francisco 231
McMillen Silver Mining Co., Ariz..... 81
Meadow Valley Mining Co..... 288
*Mechanical Notes from the Paris Exhibition..... 58
*Meiggs, Henry..... 437
Melvina Mine..... 287
Memphis Gold and Silver Mining Co., its Stock struck from the List of Mining Stock Board, New York.....359, 395
Mercer County, Colo..... 9, 153
Metallic Films, Color of 207
*Metallurgy of Nickel, the, 5, 23, 45, 62, 78, 96, 114, 167
Metallurgical Queries,.....380, 399
Metallurgical Queries, Answers to..... 443
Metallurgical Review, the..... 91
METALS .....Weekly
Metals, the Rarer, at the Paris Exposition.....147, 164
Metric System.....152, 188
Mexican Dollar in Japan..... 426
Mexican Dollars as Bullion..... 86
Mexican Exhibition..... 421
Mexican Gold and Silver Mining Co., Nev., 53, 89, 107, 125, 179, 198, 215, 233, 288, 341, 359, 377, 395, 413, 428, 430, 450, 451, 453, 468, 470
Microphone, the..... 8
Microphone Applied to the Human Body..... 152
Microphone in Collieries..... 119
Microphone, Pocket..... 440
Microphonic Trade Reports 127
Milwaukee. *See* Coal Trade Review *and* Iron Market Review.
Mine Law in Pennsylvania, Enforcing the..... 25
Mineral Developments in Maryland.... 95
Mineral Discoveries in New Mexico.... 350
Mineral Produce of Great Britain and Ireland..... 421
Mineral Production of Great Britain in 1877 235
Minerals from Coosa County, Alabama 82
Mine Reports, Monthly..... 200
Miner's Delight Mine, Wyoming..... 123
"Miner," the Colorado, Georgetown, Colo..... 119
Mines, the Telephone in..... 462
Mine Timber, the Preservation of..... 146
Miniature Edition of the Engineering and Mining Journal, 317, 343, 361, 379, 397, 415
Mining Claims, Location of—Square and other Methods..... 331
Mining Department of the New York Exchange, Petition for..... 428
Mining Engineers, American Institute of, Meeting..... 272
Mining Engineering as a Profession... 272
Mining Engineers, Institute Meeting, 271, 289
Mining Engineers, Papers Read at Meetings of..... 293
Mining in Brazil..... 350
Mining in Virginia..... 60
Mining Law, Amendments to the..... 278
Mining Laws and Mining Titles..... 6, 76
Mining Machinery, Large Orders for... 420
Mining Myths..... 110
Mining Notes, North Shore, Lake Superior.....388, 405
Mint at Bordeaux, France..... 104
Mint, Carson, Coinage..... 213
Mint Coinage, Philadelphia.....14, 104
Mint Coinage, San Francisco..195, 266, 449
Mint Director's Report..... 356
Mint Machinery, London..... 68
Mint, New Orleans..... .....14, 32, 49
Mint Royal, England..... 31
Mint, San Francisco, Cal..... 104
Mint, U. S., Coinage at Philadelphia.... 320
Mints, U. S., Coinage of, July, 104; August, 177; Sept., 248, 410
Mint, U. S., Report of the Director of the..... 432
Mississippi Current, the.....290, 397, 401
Mississippi Jetties.....152, 187
Missoula County, Mont., Quartz Discovery..... 352
Missouri..... 9
Modoc Mining Co., Cal.....136, 251, 303
Moffat, Mr 326
Molten Carbonate of Soda, for Puddling..... 383
Monetary Conference..... 141
Monetary Conference, International.. 159
Monmouth-Kansas Mine, Colo., 9, 278, 404
Mono Gold Mining Co., Cal., 289, 288, 305, 334, 359, 378, 406, 453, 470
Monongahela Valley, Strikes in..... 350
Moose Gold and Silver Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 143, 161, 179, 197, 215, 233, 251, 267, 287, 303, 305, 321, 341, 357, 375, 393, 413, 428, 450, 468
Mortar, Sawdust in..... 367
Mosandrium—Another New Metal..... 132
Mosandrium, the New Element 315
Mosandrium, the Supposed New Metal 224
Montana, 63, 118, 172, 262, 298, 316, 352, 423
Montana Company's Mill..... 63
Montana Gold Discoveries..... 172
Montezuma Mine, Colo..... 154
Montreal. *See* Coal Trade Review.
Mount Bross Tunnel and Mining Co. 34, 71
Murphy's Camp Discoveries, Cal..... 280

N

Nacooche Gold Mining Co., Ga..... 244
Nail Makers, England, on Strike....41, 64
Narragansett Mine Colo..... 404
Narrow-Gauge Virginia Railroad, New, 96
National Academy, the, and the National Surveys..... 455
National Mine, Utah 118
Native Silver Mining Co., Colo 260, 451
Navajo Mining Co., 269, 288, 305, 341, 342, 359, 377, 393, 396, 413, 428, 430, 450, 451, 468
Nettie Mine, Colo..... 172
Nevada, 46, 63, 82, 99, 136, 172, 191, 208, 226, 244, 280, 298, 316, 334, 352, 370, 406, 423, 464
Nevada and California Mines..... 204
Nevada and Colorado Mines..... 223
Nevada Bank, San Francisco, Statement..... 104
Nevada County Hydraulic Mines, Nev. 118
Nevada Mines..... 169
Nevada Mining Notes..... 260
New Brunswick Coal Interests..... 367
New Guinea Exploration Expedition.. 327
New Jersey Lands, Drainage of..... 348
New Jersey Silver Mill, Colo.....154, 171
New Jersey Zinc Company..... 363
Newman, Rev. Consul-General..... 305
New Mexico, Important Mineral Discoveries in..... 350
New Orleans, Yellow Fever in..... 350
NEW PUBLICATIONS. *See* Publications—New.
New Rocky Bar Mining Co..... 89
New York and Calaveras Mining Co., Cal..... 99
New York and Colorado Gold Mining Co., Colo., 15, 34, 52, 71, 89, 107, 125, 161, 197, 215, 233, 251, 267, 303, 321, 357, 375, 393, 413, 428, 468
New York and Colorado Mine, Colo...9, 154
New York Belting and Packing Company, the Failure of the..... 53
New York Exchange, Mining Department, Petition for.....428, 450
New York Island and Harbor, Geological History of..... 397
New York Mining Co., Nev..... 125
New York Petroleum Market 315
New Zealand Tin Industry..... 64
Non-Transparency of Flame..... 406
North Bloomfield Gravel Mining Co., Cal..... 107
North Bonanza Mining Co., Nev. 370, 396, 451
Northern Belle Silver Mining Co., Nev., 89, 125, 143, 178, 251, 305, 359, 377, 396, 430, 470
North Carolina..... 46
North Carolina Gold Mines..... 428
North Chicago Rolling Mill Co 46
North Consolidated Virginia Mining Co., Nev.....208, 209, 352, 464
North Shore, Lake Superior, Mining. 76
North Shore, Lake Superior, Mining Notes..... 388
Notes..... 421
Nickel..... 406
Nickel, Delicate Test for..... 333
Nickel Jewelry..... 444
Nickel, Metallurgy of, the. *See* Metallurgy of Nickel.
Nickel Plating Patents..... 422
Nickel—Platinum Counterfeit Gold Coins—Cobalt-Plating..... 236
Niello..... 170
Nitrate Company, the Peruvian..... 258

O

Obelisk, the Egyptian..... 244
Ober's, Frederick A., of Mass., West Indies Natural History Collection for the Smithsonian Institution..... 311
O'Brien's, W. S., Assets..... 261
Observatory on Mount Etna..... 400
Ocean Beach Mining, Cal. 99
Ocean Placers of San Francisco..... 279
Ocean Wave Smelting Works, Colo.... 172
Ocher in Mansfield, Mass..... 420
Ocher of North Mountain, Pa..... 439
*Oestlund Mechanical Puddler in Sweden..... 202
Ohio Oil Product, October..... 369
Oil Monopoly, the..... 315
Oil Producers' Conference..... 368
Oil-Well, Custer County, Colo..... 154
Old Abe Mine, Dak..... .....10, 209
Old Constitution Mine, Utah..... 349
Old Telegraph Mine, Utah.....172, 295
Old Telegraph Works, Utah..... 314
*Oliver's Screw-Headed Key..... 187
Oneida Gold Mine, Sutter Creek, Cal... 141
Oneida Mine, Colo..... 223
Ontario Silver Mining Co., Utah, 15, 28, 34, 46, 52, 71, 107, 118, 125, 143, 161, 179, 197, 215, 233, 251, 267, 269, 287, (Fire) 298, 303, 305, 316, 321, 334, 357, 367, 370, 375, 393, 413, 428, 430, 439, 450 468
Onyx Deposit in California..... 332
Openings, Defined..... 61
Ophir Gold and Silver Mining Co., Nev., 15, 17, 34, 46, 53, 63, 64, 71, 82, 89, 99, 107, 125, 136, 144, 161, 179, 191, 198, 215, 226, 233, 242, 260, 288, 298, 334, 341, 359, 377, 396, 406, 423, 430, 451, 453, 464, 470
Orders, Large, for Mining Machinery.. 420
Oriental Consolidated Mining Co., Cal. 244
Original Keystone Mining Co., Nev., 244, 269, 288, 305, 342, 375
Ouray Mining Camp, Colo..... 382
Output of Leadville Mines, Colo..... 356
Overman Gold and Silver Mining Co., Nev., 17, 64, 125, 179, 260, 305, 396, 450, 451, 470
Oxford Iron Company, Failure of..... 190

P

Pacific Coast Corporations..... 463
Pacific Coast Exhibit at Paris..... 127
Palmetto-American Mine, Dak..... 9
Palmetto Mine, Dak..... 200
Pandora Mine, Colo..... 172
Paper Exhibition..... 185
Paper from Wood Fiber..... 152
Paper Sheathing 136
Park City District, Utah..... 118
Park County, Colo.....9, 27
Paris Exposition..... 136
Paris Hippodrome..... 405
Passaic Zinc Company..... 363
Patagonia, Gold Discovery in.. 136
Pate de Bois..... 333
PATENTS, New, 27, 45, 78, 118, 168, 188, 206, 226, 244, 262, 280, 298, 316, 334 352, 370, 388, 407, 423, 445, 464
Patte, J. M..... 399
Pay Rock Mine, Colo..... 223
Peck Mine, Ariz..... 122
Penobscot and Snow Drift, Mont..298, 352
Penobscot Mine, Mont..15, 89, 161, 197, 215, 233, 251, 267, 423
*Penobscot-Snowdrift Mine, the..... 443

Perfumery, First Invoice from America ... 219
Personals, 326, 344, 363, 379, 399, 415, 434, 457
Peruvian Gold Deposits ... 131
Peruvian Nitrate Company, the ... 458
Peruvian Nitrate Works, Purchase of the ... 46
Peruvian Oil-Wells ... 316
Petroleum, German ... 444
Petroleum, Japan, Exports to ... 315
Petroleum, Moundsville, Boring for Oil ... 368
Petroleum Notes ... 24, 80, 208, 463
Petroleum Statistics ... 315, 368
Petrolia (Canada) Market ... 368, 369
Phantom Lead ... 57
Phenix Mine, Amador Co., Cal ... 118
Philadelphia Elevated Railroad ... 420
Philadelphia Polytechnic College, the Award of the ... 28
Phil Sheridan Mining Co ... 269, 288, 305
Phillipsburg Mines, Mont ... 63
Phosphate Lands, Canadian, Sale of ... 350
Phosphor-Bronze ... 257, 276
Phosphoric Steel ... 217
Phosphorus, Elimination of, from Molten Iron ... 422
Phosphorus in Iron and Steel ... 4
Phosphorus, Removing, from Iron Ores ... 96
Photographic Impressions on Silk Stuffs ... 148
Phylix Mine, Idaho ... 423
Physics and Hydraulics of the Mississippi ... 163
Pig-Iron Freight Rates ... 463
Pigment, New Zinc ... 368, 380
Pioneer Mine, Colo ... 153, 260
Pipe-Line, New ... 315
Pipe-Vein, What is a ? ... 361
Piracy, European, of American Mechanical Principles ... 368
Pittsburg. *See* Coal Trade Review *and* Iron Market Review.
Pittston, Pa. *See* Coal Trade Review.
*Planimeter, the ... 24
Plata Verde Mine, Colo ... 332
Platinotype, the ... 333
Platinum Plating ... 364
Plumas-Eureka Mine, Cal., Bullion Yield ... 266
Plumas National Gold Quartz Mining Co., 15, 34, 52, 71, 89, 107, 125, 143, 179, 197, 215, 233, 251, 267, 287, 303, 321, 341, 357, 393, 413, 428, 450, 468
Pneumatic Drying Machine for Minerals ... 463
Pockets, defined ... 14
Pole, Fruitless Cruise for the ... 422
*Polishing Stone by Machinery ... 44
Poole, Henry S ... 279
Population of the Earth ... 152
Portage and Torch Lakes, Copper Shipments ... 463
Postal Department as a Treasure-Carrier ... 123
Potosi Mine, Idaho ... 423
Powder Explosion, Frightful, in Russia ... 100
Powder-Mill Explosion ... 261
Powell, Major J. W., Survey ... 368
Pratt Coal and Coke Company ... 111
Prehistoric Inhabitants of Switzerland 279
Prince Arthur's Min-, Lake Superior ... 405
Prizes for Inventions ... 438
Production of the Comstock Lode ... 143
Profits, Government, on Silver Coinage 159
Profits on Coinage ... 32
PROPOSALS, 191, 209, 226, 245, 262, 280, 298, 316, 334, 352, 370, 388, 407, 423, 464
Protective Policy in Canada ... 217

PUBLICATIONS, NEW:

Album to the Course of Lectures on Metallurgy at the Central School of Arts and Manufactures of Paris: S. Jordan ... 399
Aneroid Barometer, the, its Construction and Use: Prof. G. W. Plympton ... 110
Annual Report of the Comptroller of the Currency to the Third Session of the Forty-fifth Congress of the United States: John Jay Knox ... 416
Annual Report of the Secretary of the American Iron and Steel Association: James M. Swank ... 38
Dictionnaire des Arts et Manufactures et de l'Agriculture: M. Charles Laboulaye ... 92
Die Kohlen und Eisenerz-Lagerstaetten Nordamerikas, etc. (The Coal and Iron-ore Deposits of North America): Prof. Hanns Höfer ... 199
Die Magnetische Declination, etc. (The Magnetic Declination and the Isogonals in the Austro-Hungarian Kingdom and Adjoining Regions): F. Posepny ... 218
Die Petroleum-Industrie Nordamerikas, etc. (The Petroleum Industry of North America): Prof. Hanns Höfer ... 199
Directory to the Iron and Steel Works of the United States: James M. Swank ... 272
Entwickelung, die, der Mechanischen Aufbereiting, etc. (The Development of the Art of the Mechanical Preparation of Ores during the last Hundred Years): Ernst F. Althans, Oberbergrath at Breslau ... 433
Geologist's Traveling Hand-Book. An American Geological Railway Guide, giving the Geological Formation at Every Railway Station, with Notes on Interesting Places on the Routes, and a Description of Each of the Formations: James Macfarlane, Ph.D ... 415
Gold and Silver Mines of North America: R. C. Stone ... 219
Index, General and Analytical, to the American Cyclopædia: T. J. Conant, Blandina Conant ... 326
Machine Construction, Principles of: Edward Tomkins and Henry Evers 236
Mining Machinery.—A Descriptive Treatise on the Machinery, Tools, and other Appliances used in Mining: G. G. André, F.G.S., Assoc. Inst., C.E., etc ... 433
Musterconstructionen für Eisenbahn-Bau und Eisenbahn-Betrieb (Examples of Construction for Railway-building and Railway-operating): Edmund Heusinger von Waldegg ... 111
Note sur l'Acier Chromé (Note on Chrome Steel): M. G. Rolland, E.M. 127
Notice sur les Tellurures d'Or et d'Argent, etc. (Remarks on the Tellurides of Gold and Silver of Boulder County, Colorado, etc.): M. G. Rolland, E.M ... 127
Pennsylvania Second Geological Survey, Volume Q. Report of Progress in the Beaver River District of the Bituminous Coal-Fields of Western Pennsylvania: I. C. White ... 308
Railway Builder, the: William J. Nicols ... 21
Railway Service: Marshall M. Kirkman ... 236
Report upon Geographical and Geological Surveys West of the One Hundredth Meridian, in charge of First Lieut. George M. Wheeler, Corps of Engineers, U.S.A., etc. Vol. II., Astronomy and Barometric Hypsometry ... 92
Reports of the Inspector of Mines of the Anthracite Coal Regions of Pennsylvania, for the year 1877 ... 74
Road-Master's Assistant and Section-Master's Guide: William S. Huntington and Charles Latimer ... 235
Rock Blasting: George D. André ... 38
Second Geological Survey of Pennsylvania.
Vol. KK.—Report of Progress in the Fayette and Westmoreland District of the Bituminous Coal-fields of Western Pennsylvania. Part II. The Ligonier Valley: J. J. Stevenson ... 253
Vol. N.—Two Hundred Tables of Elevation above Tide-Level, etc.: Charles Allen ... 253
Vol. Q.—Report of Progress in the Beaver River District of the Bituminous Coal-fields of Western Pennsylvania: I. C. White ... 253
Speaking Telephone, Talking Phonograph, and other Novelties, the: George B. Prescott ... 75
Tabellen zur Bestimmung der Mineralien, etc. (Tables for the Determination of Minerals from their External Characters): Dr. Albin Weisbach ... 218
Tunneling, Explosive Compounds, and Rock Drills: Henry S. Drinker, E.M ... 41
United States Centennial Commission. Reports and Awards: Francis A. Walker ... 398

AUTHORS OF PUBLICATIONS.

André, George D.: Rock Blasting ... 38
André, G. G.: A Descriptive Treatise on the Machinery, Tools and other Appliances used in Mining ... 433
Allen, Charles: Two Hundred Tables of Elevation above Tide-Level, etc. 253
Althans, Ernst F.: Die Entwickelung der Mechanischen Aufbereitung ... 433
Conant, T. J., and Blandina: a General and Analytical Index to the American Cyclopædia ... 326
Drinker, Henry S., E.M.: Tunneling, Explosive Compounds, and Rock Drills ... 41
Evers, Henry: Machine Construction 236
Höfer, Prof. Hanns: Die Petroleum-Industrie Nordamerikas, 199; Die Kohlen und Eisenerz-Lagerstaetten Nordamerikas ... 199
Huntington, William S.: Road-Masters' Assistant ... 235
Jordan, S.: Album to the Course of Lectures on Metallurgy at the Central School of Arts and Manufactures of Paris ... 399
Kirkman, Marshall M.: Railway Service ... 236
Knox, John Jay: Annual Report of the Comptroller of the Currency ... 416
Laboulaye, M. Charles: Dictionnaire des Arts et Manufactures et de l'Agriculture ... 92
Latimer, Charles: Road-Master's Assistant ... 235
Macfarlane, James, Ph.D.: The Geologist's Traveling Hand-Book ... 415
Nicols, William J.: The Railway Builder ... 21
Plympton, Prof. G. W.: The Aneroid Barometer ... 110
Posepny, F.: Die Magnetische Declination, etc ... 218
Prescott, Geo. B.: The Speaking Telephone, Talking Phonograph, and other Novelties ... 78
Rolland, M. G., E.M.: Notice sur les Tellurures d'Or et d'Argent, etc., 127; Note sur l'Acier Chromé ... 127
Stevenson, J. J.: Report of Progress in the Fayette and Westmoreland District of the Bituminous Coal-fields of Western Pensylvania ... 253
Stone, R. C.: Gold and Silver Mines of America, the ... 219
Swank, James M.: Annual Report of the Secretary of the American Iron and Steel Association, 38; Directory to the Iron and Steel Works of the United States ... 272
Tomkins, Edward: Machine Construction ... 236
Waldegg, Edmund Heusinger von: Musterconstructionen für Eisenbahn-Bau und Eisenbahn-Betrieb ... 111
Walker, Francis A.: United States Centennial Commission. Reports and Awards ... 398
Weisbach, Dr. Albin: Tabellen zur Bestimmung der Mineralien, etc. ... 218
White, I. C.: Report of Progress in the Beaver River District of the Bituminous Coal-fields of Western Pennsylvania ... 253, 308
Public Lands, Increased Sale of ... 46
Pulaski Mine, Colo ... 153
Pumping Machinery, the Knowles ... 439
"Puts" ... 231
Pyrenees Mine, Colo ... 9

Q

Quack Nostrums ... 383
Quicksilver from Napa Consolidated Quicksilver Mine ... 159
Quicksilver Mines, Cal ... 118
*Quick-Speed Hand-Drill ... 204

R

Railroad, Another, in the Monongahela Valley ... 81
Railroad Coal in India ... 64
Railroad Construction ... 257, 315, 383
Railroad Construction, New ... 463
Railroad Earnings in September ... 350
Railroad Flow ... 58
Railroad Projects in Colorado ... 451
Railroads, Elevated, Noise on ... 257
Rails, Old, for Bridges ... 383
Railway Accidents ... 135
Railway Block-Signaling by Electricity 462
Railway, Guatemala ... 443
Railway Parcel Express Stamps ... 444
Railways in China and Japan, Antagonism to ... 244
Railways, Indian ... 443
Rambon Mine, Ariz ... 262
Range, Defined ... 61
Rapreff's Illuminating System ... 405
Raymond & Ely Gold and Silver Mining Co., Nev., 215, 233, 303, 342, 359, 378, 396, 430, 451, 470
Red Cloud Consolidated Mining Co., Cal ... 406
Red Cloud Gold Mining Co., Cal., 143, 369, 378, 453
Red Cloud Mine, Colo ... 27
Redemption of Subsidiary Coins ... 248
Reeves, Samuel J ... 431
Refineries in Japan ... 316
Report of the Director of the United States Mint ... 432
Resumption Prospects ... 338
Rex Montis Mining Co., Cal ... 136
Riche Placer, Colo ... 172
Richmond Committee, Report of the, 19, 37, 56
Richmond Consolidated Gold and Silver Mining Co., Nev ... 198, 269, 451, 470
Richmond. *See* Coal Trade Review *and* Iron Market Review.
Rich Placer Diggings Discovered ... 53
Richer Mining Co ... 269, 288, 305, 342
Rising Sun Mining Co., Colo ... 172
Roberts, W. Milnor ... 458
Rock Drills ... 401
*Rock Drills and Air Compressors ... 439
Roome, Father, on those "Upstart Schemers," Inventors ... 307
Rosewood ... 346
Round Top Mountain (Colo.) Discoveries ... 260
Roumanian Petroleum ... 64
Ruby Camp, Hardscrabble District, Colo ... 186
Rudisill Mine, N. C ... 46
Russia, Gold Discoveries in ... 350
Russian Metallurgical Notes ... 345
Russia Sheet-Iron ... 203
Russia Sheet-Iron, and How it is Made, 199
Rustler Gold Mining Co., Cal ... 453
Rust, Protecting Iron from ... 208

S

Saint James Mine, Colo ... 171
Salaries of the French Professors of the Faculties ... 444
Salmon River Mines, Idaho ... 118
Salt Deposits in Germany ... 350
SALT LAKE ORE MARKET ... Weekly
Salt Manufacture in Georgia ... 128
Salt-Mining, Hydraulic, in Bavaria ... 206
Salt-Well, Wyoming, N. Y ... 254
Sam's Mine, Dak ... 10
Sandusky. *See* Coal Trade Review.
San Francisco Mining Market, 395, 428, 453
San Francisco Ocean Placers ... 279
San Francisco. *See* Coal Trade Review.
San Francisco Stock Exchange Sales ... 323
San Juan (Colo.) Silver Mines ... 115, 169, 382, 404
San Juan District, Colo ... 154
San Juan Reducing Company ... 278, 279
San Juan Region ... 278
San Pete Coal Fields, Utah ... 28
Saratoga Mine, Colo ... 9, 242
Sartor Resartus, or the Salter Salted ... 181
Saurians, Fossil ... 170
Savage Gold and Silver Mining Co., Nev., 17, 89, 125, 298, 305, 334, 352, 377, 396, 423, 450, 451, 470
Sawdust in Mortar ... 367
*Scale-Beam, Patent Combination ... 313
Schliemann, Dr ... 134
Schuylkill Wages ... 190
Science and Wealth ... 238
Science Gossip ... 364
Science Hash ... 93
Scientific Prediction, Remarkable ... 329
Scorpion Mining Co., Nev., 269, 288, 305, 359, 396
Seaton Gold and Silver Mining Co., 52, 71, 89, 107, 143, 161, 197, 233, 251, 303, 341, 375, 393
Secret Remedies ... 383
Segregated Belcher Gold and Silver Mining Co., Nev ... 161
Self-Fluxing Magnetic Iron Ore, a Successful Experiment with ... 10
Self-Generating Disinfectant ... 152
Sellers, William, & Co ... 326
Seminole Gold and Silver Mining Co ... 399
Senator Mine, Ariz ... 81
Seneca Falls, N. Y ... 185
Separation, the, of Arsenic and Antimony ... 346
Sergeant, H. C ... 326
Setting Tires with Hot Water ... 136
Seven-Thirty Mine, Colo ... 260
*Sharpening Files by the Sand-Blast ... 149
Sharper Caught ... 415
Ship-Canal, New Orleans, to the Gulf of Mexico ... 152
Sheet, Defined ... 62
Ship, the English Steel ... 445
Siberian Mines, the ... 6
Siehr's Method—Sawdust in Mortar ... 367
Sierra Buttes Mine, Cal ... 225
Sierra Nevada Bonanza ... 190, 259
Sierra Nevada Excitement ... 224
Sierra Nevada Gold and Silver Mining Co., Nev., 17, 34, 46, 53, 82, 89, 107, 125, 136, 143, 161, 179, 191, 197, 198, 208, 215, 216, 224, 226, 233, 242, 251, 267, 269, 280, 287, 288, 298, 305, 316, 323, 334, 341, 342, 352, 359, 370, 377, 378, 395, 396, 406, 413, 414, 423, 430, 451, 453, 464, 468, 470
Signal Mine ... 342
Silica, Crystal of, and of the Silicates ... 171
Silicon, Influence of, on Cast-Steel ... 416
Silver, American, Demand for, in Hayti, 177
Silver and Finances in Japan ... 230
Silver Cliff, Colo.—A New Bonanza ... 243
Silver Cliff Mines, Colo., 224, 256, 297, 314, 332, 404
Silver Cliff Mines, Value of ... 379
Silver Coinage ... 68
Silver Coinage in Mexico ... 266
Silver Coin in Circulation ... 86
Silver Coin in the Treasury ... 338
Silver Conference, the ... 182
Silver Convention with Belgium, Italy, Switzerland, and Greece, Ratified by the Chamber of Deputies, at Versailles ... 427
Silver, Daily Range of, London and New York, Weekly, *under* Bullion.
Silver Dale Mine, Colo ... 153
Silver Dollar, Circulation ... 195
Silver Exports from London to the East ... 49
Silver Hill Gold and Silver Mining Co., Nev ... 209, 393, 451
Silver in the South ... 73
Silver Islet Mine, Ont., 161, 321, 341, 357, 375, 388, 393, 395, 413, 428, 450, 468
*Silver Islet Mine, Ont ... 438
Silver King Mining Co., Bullion Yield ... 159
Silver King Mining Co., 269, 280, 288, 305, 342, 378
Silver, Large Purchase ... 68
Silver, Legal-Tender, Vermont ... 374
Silver Market Abroad ... 159
Silver Market, 374; in Mexico ... 374
Silver Market in London ... 392
Silver Mines, San Juan ... 382
Silver Mountain Mine, Colo ... 260
Silver Movement ... 195
Silver Movements in Great Britain ... 339
Silveroid ... 406
Silver Plume Mine, Colo ... 116
Silver Prize Mining Co., Nev ... 267, 393
Silver Problem in Europe ... 356
Silver Purchase and the Dollar ... 266
Silver Purchase, Government ... 449
Silver Purchases, U. S ... 32
Silver Reef Mines, Utah ... 334
Silverton Mine, Colo ... 135
Silverton Smelting Works, Colo ... 172
Simpson, Bishop ... 305
Sitting Bull Gold Mining Co., Cal ... 453
S. J. Tilden Mine, Colo ... 153
Skae, John ... 395, 458
Skae & Jim Fair ... 198
Skidmore, W. A ... 326
Slide Mine, Colo ... 27, 34, 287
*Slide-Valve, Working Results of, Method of Ascertaining ... 277
Slide-Valves, Balanced ... 381
Sloan, Samuel ... 399
Smelting Native Copper at Lake Superior ... 329
Smith, Eben ... 344
Smoke-Burning Furnace ... 422
Smuggler Mine, Colo ... 135
Snake River Placers, Idaho ... 422
Snowdrift Mine, Mont ... 89, 161
*Snyder's "Little Giant" Steam Engines ... 256
Soap-Wort, Effect of, on Petroleum Oils ... 261
Soda, Caustic ... 241
Soda, Caustic, New Process for the Manufacture of ... 441
Soda Manufacture, Ammonia Process 420
Soda Process, New ... 129
Solar Heat, Economical Value of ... 148
Solar Heat in Algeria, Utilizing ... 206
Soldering-Irons, Improvement in ... 332
Solid Steel Castings ... 95
Sonora Anthracite Coal ... 458
South American Trade ... 462
South Bodie Gold Mining Co., Cal ... 453
South Bulwer Mining Co., Cal ... 242
Southern Gold Mines, Our ... 134
South Standard Gold Mining Co., Cal., 242, 453
Spanish Coal ... 4
Spaulding Gold Mining Co., Cal ... 143
Specie Held by European Banks ... 123
Specie Movement, New York ... 68, 195
Specie Payment Mine, Colo ... 153
Spenceville Copper Mines, Cal ... 27, 28
Sprague Mine, Ga ... 244
"Spreads" ... 231
Springfield, Mass., Holly System at ... 346
Stability of Cleopatra's Needle ... 422
Staining Woods ... 367

St. Alban's Iron and Steel Works, Vt., Attached 350
Stamp-Mills in Dakota 9, 10
Stamps, Railway Parcel Express 444
Standard-Dollar Statistics 159
Standard Gold Mining Co., Cal., 143, 155, 209, 225, 280, 316, 348, 369, 406
Standard Oil Company 315
STATISTICS OF COAL PRODUCTION ..... Weekly
Statistics of the American Iron Trade 39
Steam as a Light Reflector 294
Steam-Boiler Fires 365
Steam-Engines, "Knocking" in 383
Steam-Pipes in Chicago 406
Steam Road-Wagons in Wisconsin 137
Stearic and Oleic Acids, Determining and Separating 170
Steel, Bessemer 406
Steel, Cast, Influence of Silicon on 416
Steel, Dr. Siemens's Definition 364
Steels, Classification of 261
Steel Ship, the English 445
Steel Towing-Lines 261
Stewart Gold Mining Co., Utah., 349, 367, 423
St. Gothard Tunnel 261, 445
St. John Mine, Colo 154
St. Louis. *See* Coal Trade Review *and* Iron Market Review.
Stock Board, Mining, New York, strikes from the Stock List the American Consolidated Gold and Silver Mining Co., 305; and the Memphis Gold and Silver Mining Co 359
"Stock Deals," the Church in 305
STOCKS, GENERAL MINING (Table) ..... Weekly.
Stones, Precious, Artificial Production of 380
Stones, Precious, First Artificial 293
Stoppage of American Supplies of Silver, Effect of the Present 265
"Straddles" 231
Strawberry Gulch Mines, Sale of 172
Straw-Burning Engines 147
Strike at Pittsburg and Allegheny 348
Strike, Coal Miners', Zanesville, O 351
Strike, French Colliery 46, 64
Strike, Nail-Makers' 309
Strikes of Coal Miners in the Monongahela Valley 350
St. Thomas, Ont., Petroleum Refinery 316
Submarine Cables, Dangers that Beset 82
Suez Canal Traffic 171
Sugar, Machine for Cubing 368
Sugar of the World, Production 206
Sulphur at Chillan, in Chili 119
Summer Refrigeration 225
Summit Gold Mining Co., Cal., 143, 305, 378, 453
Summit Mine, Colo 190
Sumner Gold and Silver Mining Co., Cal 422
Sunset Mine, Utah 172
Sunshine Quartz Mill, Colo 153
Superheated Steam as a Motive Power 152
Survey, Geological, of Georgia 370
Surveys, National, Report of the Committee on 460
Surveys, National, the 455
*Sutro Tunnel and its Projector 384
Sutro Tunnel, Nev., 17, 19, 25, 46, 64, 82, 99, 107, 136, 161, 172, 191, 225, 298, 316, 341, 359, 375, 377, 379, 407, 413, 428, 430, 450, 470
Swimming Apparatus, Novel 261
Swiss Railways 64
Swither, Defined 61
Switzerland, Prehistoric Inhabitants 279

T

Tambaroora Mining Co., Cal 118
Taylor, Moses 344
Tecumseh Hill Mine, Utah 334
Tecumseh Mine, Dak 9
Telegraphic Notes 82
Telegraph Wire in the United States 136
Telegraph Wires, Underground 406
Telephone Diaphragm, New 148
Telephone in the Field 201
Telephone in Coal Mining 241
Telephone, Real Inventor of 170
*Telephone, the 346
Telephone, the, in Mines 462
Temescal Tin Discovery, Cal 28
Tennessee 46
*Teredo, the, and its Depredations, 275, 295, 313, 331, 366, 402
Testing Boiler Iron 351
Thaumasite 224
Tight Stoppers, to Remove 333
*Tile-Making Machine 400
*Tiles 328
*Timber, Ocher, and Iron Ore, the, of North Mountain, Pa 439
Tin Mines, Billiton 294
Tin of New Zealand 28
Tin, Where the Ancients Got it 259
Tioga Gold Mining Co., Cal., 143, 269, 288, 305, 378, 453
Tip Top Mining Co., Ariz., 81, 197, 215, 233, 251, 267, 269, 287, 288, 303, 305, 321, 342, 357, 359, 375, 393, 413, 468
Tough Nut Mine, Ariz 280
Trade Dollar 338
Trade Dollar Bills in the Senate 410
Trade Dollar, Popularity in China 104
Trade Dollar, Refusing the 177
Trade Dollars as Bullion 86
Trade Dollars Coming Home 411
Trade Dollars, Forcing them into Circulation 177
Trade Dollar vs. the Legal-Tender Dollar 213
Tramway, French 421
Tramways, Cost of Working, by Compressed-Air Cars 461
Trapper District, Mont 316
Trask & Francis's Reading-Room 451
Treasure Exports, San Francisco 32
Trigonometrical Operations in Spain and Algeria 332
Trio Gold and Silver Mining Co., Colorado 357, 375, 428, 468
*Tripod Heads 22
Trojan Gold and Silver Mining Co., Nev 144, 451, 453
Trojan Mine, Bullion Yield 159
Trout Mine, Mont 63
Trujillo 119
Tungsten, Metallic 152
Tunnel at Gibraltar 346
Tunneling, Accurate 351
Tunneling of the Solent 261
Tunnel, St. Gothard 445
Tunnel, the Great Hungarian 460
*Tunnel Timbering and Arching, 4, 21, 42, 61, 78, 94, 113, 131, 221
Turkish Empire, Developing the Resources of the 28
Tuscarora Mining Co., Nev 428
Tybo Consolidated Mining Co., Nev 470

U

Ulster (Ellenville) Glass Works 380
Uncle Sam Gold and Silver Mining Co 17
Underground Cable from Strassburg to Kiel 421
Underground Telegraph-Wires 406
Uniform Coin, a, for Great Britain and the Colonies 213
Union Consolidated 298, 316, 334, 352
Union Consolidated Gold and Silver Mining Co., Nev., 89, 107, 125, 143, 161, 179, 197, 198, 215, 233, 251, 267, 269, 287, 298, 305, 316, 334, 342, 352, 359, 377, 395, 396, 430, 451, 453, 470
Union Consolidated Mining Co., Tenn 46
Union Iron Works, San Francisco, Cal 99
United Brooklyn Mine, Reno, Nev 242
United States, Business Prospects of the 431
United States Mint, Report of the Director of the 432
University Gold Mining Co., Cal 453
Utah Mining Co., 269, 288, 305, 359, 451
Utah Mining News, 28, 46, 118, 172, 262, 295, 298, 316, 330, 334, 349, 367, 370, 382, 423

V

Valley View Mine, Colo 190
Vandeventer & Patton, Letter from, on Eagle Gold Mining Co 453
Van Wagenen, Theo. F 359
Varnish, Amber 444
Varnish from Canadian Balsam 367
Vegetable Isinglass 367
Vein, defined 61
Ventilating Shafts in Coal Stores 169
Vermicelite 46
Vertical Mining Boundaries 73, 110
Vertical Planes to Bound Mining Claims 1
Vibrating Electrodes 405
Victoria Mine, Lake Superior 405
Vinton, Francis L 434
Virginius Mine, Colo 190
Volatilization of Arsenious Acid 422
Volcanic Phenomena 171
Voltaire and Mars' Satellites 422
Vulcan Mine, Colo 223, 351, 352
Vulcan, the Planet, Confirmation of the Discovery of 132

W

Wages, Iron-Workers', England 297
Wall-Paper from Wood 332
Walls to Resist the Pressure of Water 93
Ward District, Colo 217, 154
Ward Mining Co 269, 288, 305
Warning to Widows and Orphans 305, 323
Wash-Dirt, defined 62
Washoe City Tailings Mill, Nev 46
Watches, Improvement in 241
Water-Gas, Views of Eminent Chemists Regarding it 91
Water-Glass, New Application of 364
Water-Works of Edgar Thomson Steel Company 293
Watson's Planet 329
Wealth and the Advancement of Science 238
Wellington, Austin C 297
Wells, Fargo & Co.'s Treasure Receipts, Sept., 285; Oct 374
Wells-Fargo Mining Co., Cal. 269, 288, 305
Wendt, Arthur 363
West Virginia Oil Product, October 369
What Cheer Mine, Colo 172
Whippoorwill Mine, Mont 423
White Cloud Mining Co 378
White Mine, Colo 223
White Pine and Washington Consolidated Mine, Utah 28
White Pine District, Nev 100
Whitwell, Thomas 146
Williams Mine, Colo 154
*Windmill Blades, Best Angles for 292
Winnemucca Mine, Colo 224
Wire Rope as a Substitute for Chain Cable 444
Wood, Creosoted 345
Wood for Wall-Paper 332
World-Making, Theories of 298
Wood Pavements in London 202
Wood-Pulp 333
Woods, Staining 367
Wrought-Iron, Oldest Specimens 332
Wyandotte Consolidated Gold and Silver Mining Co., Colo 53, 278
Wyoming, N. Y., Salt-Well 354
Wyoming Valley 155, 185, 241
Wyoming Valley Mines, Pa 185

Y

Yale Lock Manufacturing Co 350
Yankee Boy Mine, Colo 135, 190
Yellow Fever and Southern Industries 274
Yellow Fever in New Orleans 350
Yellow Jacket Gold and Silver Mining Co., Nev., 17, 53, 64, 125, 161, 233, 287, 450, 451, 468

Z

Zinc Industry, Belgium 100
Zinc Ore, Exporting 253
Zinc Pigment, New 368
Zinc, the Production of, in Blast-Furnaces 111
*Zoölogical Regions and their Probable Dynamics 458
*Zuyder-Zee, Projected Draining of the 133, 151

AUTHORS, CONTRIBUTORS, AND CORRESPONDENTS.

Abbot, Henry L 401
Archibald 295, 314, 330, 349, 367, 382
B 9, 44, 57, 93, 97, 136, 154, 242, 421
Badoureau, M. 5, 23, 45, 62, 78, 96, 114, 167
Barnes, P 112, 152, 293
Baumhauer, E. H. Von, 275, 295, 313, 330, 366, 402
Birkinbine, J 293
Brooks, David 347, 363, 381
C 169, 190, 204, 223, 242, 260
Cailletet, M 439
Cazin, F. M. F 310
Chamberlin, T. E., 7, 23, 41, 61, 77, 95, 132, 237
Church, John 165, 183
Clark, Nelson 332
Coin, 9, 27, 135, 153, 154, 171, 190, 208, 223, 242, 260, 278, 403
Cooper, J. H 237
Coxe, Eckley B 2, 272, 293
Crux 224
Dewar, Prof 326
Draper, Morgan 272
Drinker, Henry, 4, 21, 42, 61, 78, 94, 113, 131, 221
E 116
Eads, James B 290
Edgerton, H. H 128, 254
Em 170, 206
Ezuest 76, 388, 405
Fleming, Howard 380
Gardiner, C. C 187
G., R 58
Greene, William H 348, 418
Gruner, L 440
Harden, John H 22
Hardscrabble 168, 243
Henning, H 169
Hill, Nathaniel 164
Hilt, Hr 168
Jamin, J 461
J. C 365
Jenks, Charles W 311
Jones, Washington 294
Jonnieskaesquaredeal 223
K 93, 258, 296, 348
Keck, Rudolph 219
Keith, N. S 26, 59, 201
Kern, Sergius 345
Keyes, W. S 278
Kinsbourg, Henri 418
Kupelwieser, F 329
Lencauchez, A 111
Mac 134
Mackintosh, J. B 170, 207, 243, 296
Mallett, E., Jr 443
Marsh, O. C 460
Mayer, J 417
Mekarski, M 461
Mell, P. H 97, 116
M. L 330
Morel, O 166
Morse, Frederick C 6, 76
Morton, J. H 61, 331
N 443
Owen, Richard 458
Paulsen, William 380
Pelletreau, M 93
Pichler, A 80
Pierce, F. M 401
Pourcel, M 416
Raymond, Rossiter W 361
Rolker, Charles M 259
Rose, Joshua 221, 277, 328
Silliman, Benjamin 147, 164, 255
Squib 155, 185, 241
Strong, Moses, 7, 23, 41, 61, 77, 95, 132, 237
Tahon, M 165
Vernon, G. R 420
W 116, 169
Wharton, Joseph 236
White, Edward P 203
Williams, T. M 292
Wolff, Alfred R 292
Wulsten, Carl 256, 296, 314
Wurtz, Henry 3, 219, 236
W. W 382, 404
Young, Alfred 117

ILLUSTRATIONS.

Air-Governor, Steel, Clayton 188
Amalgamator, the Foster-Firmin (4 figures) 310, 311
Asbestos-Packed Plug-Cock (2 figures) 58
Blue Mounds, Upper Part of the 23
Calcareous and Arenaceous Shales at Graut River 42
Caloric Engine, Brown's 349
Coal-Cutting Machine, Lechner (2 figures) 130
Compass, Universal 58
Cone-Pulleys (3 figures) 221
Creusot Iron-Works 185
Curved Strata at Grant River 42
Cut-Off, Improved Variable Automatic (4 figures) 220, 221
Drain Pipe (3 figures) 419
Dynamo-Electric Machine, the Brush (2 figures) 240, 241
Electro-Metallurgy of Lead (3 figures) 59
Files (27 figures) 328
Fire-Escape and Extinguisher, Hydraulic (2 figures) 150
Furnace, Circular Reverberatory (2 figures) 24
Furnace, French 45
Gas-Engine (2 figures) 205
Graphite Mills at Ticonderoga; Section of the Graphite Mine, "Floating" Tanks 441
Hand-Drill, Quick-Speed (2 figures) 204
Hill in the Town of Mount Pleasant 42
Hoffman Improved Tripod-Head 22
Lead Mines, Fairplay District, Wis., Sectional Views (2) 132
Lower Magnesian Limestone at the Welsh Mill 42
Map, Outline, of the Lead Region of Wisconsin 7
Meigs, Henry 437
Micro-Tasimeter, Edison's (4 figures) 186
Mine-Openings (Ideal), Section of 61
Motor, Tyson Domestic 365
North Mountain, Pa 439
Penobscot Snowdrift Mine 443
Planimeter, the 24
Platte Mounds 23
Platte River Valley, General Section 23
Polishing Stone by Machinery (6 figures) 44
Puddling, Mechanical, Oestlund Apparatus for (2 figures) 202, 203
Rail-Ties, Serres & Battig System 58
Ram, Montgolfier Hydraulic (2 figures) 294
Rock-Breaker and Ore-Crusher, Brown's (2 figures) 184
Rock-Drill Frame 58
Safety-Valve 58
Sand-Blast, Sharpening Files by the (2 figures) 149
Scale-Beam, Combination 313
Scale's Mound to the State Line, Section from 41
Screw-Headed Key, Oliver's (11 figures) 187
Slide-Valve 277
Steam-Engines, Snyder's Little Giant (2 figures) 256, 257
Sutro, Adolph Heinrich Joseph 385

SUPPLEMENTS:

Cerro de Pasco Mines, and Callao, Lima & Oroya Railway (10 figures), between pp. 432 and 423; Profile and Plan of the Railway, Cerro de Pasco Silver Mill, Cerro de Pasco Mining District, Cerro de Pasco Silver Mill (Elevation), between pp. 440 and 441; Views, etc. (9 figures), between pp ..... 448 and 449
Delivering and Refining Lead Base Bullion by Electrolysis ..... faces p. 26
Electric Light, the Brush, between pp. 448 and 449
Silver Islet Mine (Nos. 1 and 2), between pp ..... 432 and 433
Sutro Tunnel, No. 1 (9 figures), faces p. 386; No. 2 (7 figures) faces p 388
Rand's Rock-Drills and Air-Compressors, between pp ..... 448 and 449

TUNNELING:

Austrian System, Improved, of Tunnel Timbering and Arching (7 figures) 112, 113, 114
Bodenbach and Mühlhaus Tunnels 94
Excavation, Order of, in the Belgian System 22
Excavation, Order of, in the French System 22
Fan-Shaped Timbering for Enlarged Top-Heading, French System 5
Triebitz Tunnel 43
Gumpoldskirch Tunnel (4 figures) 79
Königsdorf Tunnel (4 figures) 43
Oberau Tunnel (4 figures) 78, 79
Poganek Tunnel 61
Rakers used in the Austrian System 94
St. Cloud Tunnel 5
St. Cloud Tunnel (Underpinning the Arch) 5
Top-Heading, Advanced 4
Top-Heading, First Enlargement 4
Tronquoy Tunnel 43
Telephone 346
Telephonic Researches, Edison's (6 figures), 239; (5 figures) 258
Teredo, the (9 figures), 275; (5 figures), 295; (2 figures), 313; (3 figures), 330, 331, 366, 402
Terraced Hill near Lumberville 41
Tile-Making Machine (2 figures) 400
Tripod-Head, Hoffman Improved 22
Universal Compass 58
Upheaval of St. Peter's Sandstone at Red Rock 41
Viaduct over Rio Copa and Entrance to Tunnel 435
Wilcox Diggings 95
Windmill Blades 292
Zoölogical Regions 459
Zuyder-Zee, Map 133, 151

FINANCIAL.

ASSESSMENTS.

Albion Mining Co 323
Almaden Quicksilver Co 144
Alps Mining Co., Nev 306
Alta Gold and Silver Mining Co., Nev., 89, 144, 430, 453
Andes Mining Co 269, 288
Argenta Mining Co 216, 306
Arizona Mining Co 453
Assessments, Delinquent, 1878, by Months 453
Aurora Mining Co 453
Aurora Tunnel Co., Bodie, Cal 144, 162, 233
Bechtel Gold Mining Co., Cal., 144, 162, 233, 378, 453
Belcher Gold and Silver Mining Co., Nev 71, 89, 144, 288
Belmont Mining Co 125, 233, 430
Bevidere Mining Co 453
Benton Mining Co 125, 233, 470
Black Hawk Mining Co 251, 306, 453, 470
Black Diamond Coal Co 17
Bodie Tunnel Co., Cal 306
Boyle Mining Co 125, 233
Buckeye Mining Co., Colo 414, 453
Bullion Gold and Silver Mining Co., Nev 144, 233, 430
Caledonia (Black Hills) 453
Caledonia Gold and Silver Mining Co., Nev 234, 306, 396, 453

California and Arizona Mining Co..... 233
Carmelo Bay Coal Mining Co..... 269
Challenge Consolidated Mining Co..... 453
Challenge Mining Co., Nev..... 414
Champion Mining Co.....180, 233, 414, 453
Chollar-Potosi Gold and Silver Mining Co., Nev 179, 180, 216, 234, 306
Colorado River Copper and Gold Mining Co.....125, 233, 430
Concordia Mining Co..... 359, 453
Confidence Mining Co., Tuolumne Co., Cal..... 323
Consolidated Gold and Silver Mining Co., Nev..... 234
Consolidated Imperial Gold and Silver Mining Co., Nev.....234, 306
Copper Falls Copper Mining Co..... 87
Crown Point Gold and Silver Mining Co., Nev.....234, 306, 470
Daney Mining Co..... 396, 453
Dardanelles Consolidated Mining Co., Cal.....378, 396, 453
Day Mining Co.....251, 306
Defiance Mining Co..... 470
De Frees Mining Co., Arizona, 125, 233, 342, 453
Delinquent Assessments: Arizona, California, Nevada..... 378
Dudley Mining Co.....359, 453
Eagle Mill and Mine Co., 71, 107, 144, 216, 306
East Grand Prize Mining Co.....216, 306
Echo Mining Co.....180, 233
El Dorado Mining Co., Storey Co., Cal. 323
El Dorado South Con. Co.....107, 144, 233
Electric Mining Co.....162, 233, 396, 453
El Tesoro..... 342
Empire Mining Co., Idaho.....71, 144
Endowment Mining Co...180, 233, 414, 453
Equitable Tunnel Co..... .....306, 453
Eureka District, Nev..... 144
Europa Mining Co.....269, 288, 306
Excelsior Mining Co..... 144
Father De Smet Gold Mining Co., Dak., 378, 396, 453
Florence Blue Gravel..... 453
Fourth of July Mining Co..... 306
General Lee Mining Co..... 323
Gila Consolidated Mining Co., Arizona, 144, 233, 306, 323
Golden Fleece Gravel Mining Co...180, 233
Golden Gate Consolidated Hydraulic Mining Co 284, 306
Golden Rule Mining Co.....71, 144
Goodshaw Mining Co.....359, 378
Golden Terra Mining Co., Black Hills, Dak.....216, 306
Gould & Curry Gold and Silver Mining Co., Nev.....396, 453
Grand Prize Mining Co., Nev.....53, 144
Hackberry Mining Co.....269, 306
Hale & Norcross Gold and Silver Mining Co., Nev.....144, 233, 430, 453
Hazard Gravel Mining Co.....144, 233, 453
Humboldt Copper Mining Co., Mich. 359, 378
Hussey Consolidated Mining Co., 17, 267, 288
Ida Livingstone Mining Co..... 233
Julia Consolidated..... 453
Julia Gold and Silver Mining Co., Nev., 216, 234, 306, 359
Justice Gold and Silver Mining Co., Nev.....144, 233
Jupiter Mining Co., Cal..... 323
Kentuck Gold and Silver Mining Co., Nev.....125, 233
K K Consolidated Mining Co., 234, 306, 378, 453
"Listing" a New Mine, at San Francisco..... 269
Lodi Mining Co.....396, 414, 453
Magalia..... 453
Mammoth Mining Co 359, 453
Mariposa Land and Mining Co..... 144
Mariposa Mining Co., Cal 107
Martin White Mining Co.....89, 233, 470
May Belle Mining Co 359, 453
May Flower Mining Co..... 323
McClellan Consolidated Mining Co..125, 233
McCrackin Consolidated Mining Co., 89, 141, 269, 323, 453
McElroy Gravel Mining Co.....107, 144
McMillan Mining Co..... 414
Merrimac Copper Mining Co..... 414
Mining Assessments Delinquent in September..... 233
Mint Mining Co.....144, 233
Modoc Consolidated Mining Co., 71, 89, 144, 251, 306, 396, 453
Mono Mining Co..... 306
Moore's Flat Blue Gravel Mining Co.... 288
Mt. Diablo..... 470
Murchie Mining Co.....53, 144
Nevada Gravel Mining Co., 53, 144, 216, 306
Newton Hydraulic Mining Co..... 233
New York Mining Co., Nev....233, 378, 396, 453
North Bonanza..... 453
North Carson Mining Co.....269, 306
North Consolidated Virginia Mining Co.....144, 233, 414, 453
North Dayton Mining Co.....180, 233
Northern King Mining Co.....162, 233
Oak Grove Mining Co.....144, 233
Old Channel Gravel Mining Co..... 306
Oneida..... 453
Ophir Gold and Silver Mining Co., Nev., 234, 306, 359, 453
Oriental Consolidated..... 453
Oriental Mining Co..... 396
Original Gold Hill Mining Co.....251, 306
Original Keystone Mining Co., Nev... 342
Orion Mining Co..... 144
Overman Gold and Silver Mining Co., Nev 179, 180, 216, 234, 306
Panther Mining Co.....17, 89, 234, 306
Phœnix Copper Mining Co....180, 233, 342
Planet Gravel Mining Co..... 89
Pliocene Mining Co.....180, 233
Prospect Mining Co.....89, 144
Queen Bee Mining Co..... 430
Raymond & Ely Gold and Silver Mining Co., Nev.....144, 233, 323
Real del Monte Mining Co.....89, 144
Red Cloud Mining Co..... 453
Richer Mining Co..... 233
Rye Patch Consolidated Mining Co., 180, 306, 470
Rock Creek Mining Co..... 144
San Francisco Petroleum Co..... 288
San Francisco Sulphur Mining Co..... 216
Savage Gold and Silver Mining Co., Nev.....216, 234, 306, 430, 453
Scorpion Mining Co.....89, 144, 453
Selby Hill Mining Co.....216, 306
Senator Mining Co..... 470
Sierra Nevada Gold and Silver Mining Co., Nev.....107, 233, 323
Silver Hill Gold and Silver Mining Co., Nev.....89, 144, 269, 288
Silver Prize Gold and Silver Mining Co., Nev.....378, 453
South Bulwer Mining Co.....430, 453
South Standard Mining Co., 107, 144, 378, 453
South Utah Mining Co 396, 453
Stanislaus River Mining Co 233
Starr King Mining Co..... 323
St. Louis Mining Co.....269, 306
Succor Mining Co.....104, 233
Summit Mining Co.. ....144, 251, 306, 430
Sutro Mining Co..... .....288, 306
Talisman Mining Co... 233
Telegraph Mining Co..... 144
Tiger Mining Co.....71, 144, 342, 453
Tiger Consolidated Mining Co..... 233
Tip Top Mining Co.....144, 180
Tuscarora Mining Co 378, 396, 453
Utah Mining Co 17, 162, 233, 430, 470
Vermont Mining Co 453
Wall Street Quicksilver Mining Co., 414, 453
Ward Mining Co.....234, 306
Watt Blue Gravel Mining Co., 216, 306, 359, 378, 453
Wells Fargo Gold and Silver Mining Co.....89, 144, 234, 306
William Penn Consolidated Mining Co. 453
Yellow Jacket Gold and Silver Mining Co., Nev.....234, 306
Young America Mining Co..... 144

AUCTION SALES OF STOCKS AND BONDS.

American Zinc Co..... 313
Atlantic City Gas and Water Co..... 251
Barclay Coal Co..... 393
Bethlehem Iron Co..... 266
Boston Gas Co.....15, 71, 107, 231, 450
Brooklyn Gas Co., N. Y., 197, 267, 303, 375
Buck Mountain Coal Co..... 266
Cambria Iron Co..... 303
Cambridge Gas Co., Mass... ..15, 107, 231
Catawissa RR. Co..... 393
Chesapeake & Ohio RR. Co..... 303
Citizens' Gas Co., Brooklyn..... 267
Dorchester Gas Co., Mass.....71, 87, 107
Fremont Coal Co..... 177
Garland Oil Co..... 52
Gregg Brick Co..... 249
Hannibal Bridge Co..... 303
Harlem Gas Co..... .....215, 357
Hickory Farm Oil Co..... 52
Huntingdon and Broad Top Mountain RR. Co.....266, 303
Jamaica Plains Gas Co..... 107
Jersey City Gas Co..... 357
Keokuk and Hamilton Bridge Co. .. 303
Lehigh Valley RR. Co..... 177
Lycoming Gas and Water Co.....179, 251
Manhattan Gas Co., New York, 179, 197, 231, 267, 303, 375
McCrea Petroleum Co..... 52
Metropolitan Gas Co., Brooklyn 52, 267
Metropolitan Gas Co., New York., 161, 179, 215, 231, 251, 267, 303, 357, 393, 427, 450
Milton Farm Oil Co..... 52
Municipal Gas Co., New York.....161, 303
Mutual Gas Co., New York 427
Nassau Gas Co., Brooklyn. 267, 375
National Copper Mining Co..... 179
Newark Gas Co 251
New Haven Gas Co..... 251
Newton & Waterton Gas Co..... 71
New York Gas Co., 107, 197, 231, 267, 375, 393, 427
Northern Liberties Gas Co., Phila., 71, 303, 375, 427
Oil City Water-Works 303
Peekskill Gas Co., N. Y..... 197
Penn Gas-Coal Co..... 303
Pennsylvania Canal Co..... 177
Pennsylvania Coal Co..... 374
People's Gas Co., Baltimore..... 71
People's Gas Co., Brooklyn, N. Y..... 393
Philadelphia & Reading RR. Co..... 303
Phœnix Iron Co..... 249
Phœnix Oil Co..... 52
Reading & Columbia RR. Co..... 303
Reading Hydraulic Works..... 161
Rising Sun Silver Mining Co..... 107
South Boston Gas Co..... 15
Trenton Coal Co..... 249
Union Canal Co..... 303
Volcanic Coal and Iron Co..... 468
Washington and Walnut Bend Oil Co. 52
Westmoreland Coal Co..... 393
Williamsburg Gas Co., N. Y..... 52

COMPANY MEETINGS.

American Coal Co..... 427
American Kaolin Co..... 320
Angell and Blake Manufacturing Co... 468
Autocrat Mining Co..... 427
Bank of California..... 288
Black Hawk Mining Co 341
Calumet & Hecla Copper Mining Co... 34
Colorado Central RR. Co..... 427
Copper Falls Copper Mining Co..... 34
Duncan Silver Mining Co., Ont....357, 422
Fanchance Iron Co..... 468
Hampshire & Baltimore Coal Co..... 285
Hasson Consolidated Mining Co..... 427
Metropolitan Gas Co..... 468
Mexican Gold and Silver Mining Co., Nev..... 451
National Copper Mining Co..... 34
Nevada Bank..... 288
New Central Coal Co..... 374
New York Steam-Power Co..... 427
Northern Pacific RR. Co 177
Star Copper Mining Co..... 34
Wallkill Valley RR. Co..... 266

COPPER STOCKS.

Allouez Mining Co., 267, 303, 341, 357, 375, 393, 413, 428
Atlantic Copper Mine..... 375
Calumet & Hecla Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Central Mining Co., 15, 34, 107, 125, 143, 161, 179, 231, 251, 468
Copper Falls Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Copper Product, November 428
Discovery of Copper Ore at Martinhead, N. B..... 356
Ely Copper Mines, Vt.....34, 375
Franklin Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Hoar Vein, Houghton, Mich..... 428
Madison Copper Mining Co., Mich..... 428
Moss Copper Mine..... 52, 375
Monthly Copper Products.....52, 125, 356
National Mining Co., 215, 231, 251, 267, 287, 303
November Copper Product..... 428
Osceola Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Pewabic Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Phœnix Copper Mine, Mich..... 393
Quincy Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Ridge Mining Co., 15, 34, 52, 71, 87, 107, 125, 143, 161, 179, 197, 215, 231, 251, 267, 287, 303, 321, 341, 357, 375, 393, 413, 428, 450, 468
Shipments from Copper Mines..... 71
Victoria Copper Mine..... 52

COUPONS AND INTEREST.

GAS BONDS.

Baltimore Gas Co..... 179
Boston Gas Co. 251
Cedar Rapids Gas Co., Iowa..... 251
Central Gas Co..... 179
Champaign and Urbana (Ill.) Gas-Light Co 34, 179
Citizens' Gas Co., Brooklyn..... 251
Citizens' Gas Co., Newark..... 413
Citizens' Gas Co., Rochester..... 179
Clinton Gas and Coke Co., Mo..... 251
Hyde Park Gas Co., Chicago..... 251
Memphis Gas Co., Tenn 251
Metropolitan Gas Co., New York..... 413
Nebraska City Gas Co..... 251
Northwestern Gas and Coke Co..... 251
Omaha Gas Co..... 34
People's Gas and Coke Co., Chicago... 413
People's Gas-Light Co., Brooklyn..... 15
Westchester Gas Co..... 179
Williamsburg Gas Co., N. Y..... 15
Yonkers Gas Co., N. Y..... 251

RAILROAD BONDS.

Albany & Susquehanna RR. Co., 32, 249, 320
Alleghany Valley RR. Co 249, 468
Baltimore & Ohio RR. Co.....177, 249
Belvidere & Delaware RR. Co., 87, 177, 393
Camden & Amboy RR. Co.....249, 393
Catawissa RR. Co..... 321
Central RR. of N. J..... 32
Cleveland & Mahoning Valley RR. Co.. 177
Columbus & Hocking Valley RR. Co... 249
Connecting RR. Co..... 177
Cumberland & Pennsylvania RR. Co.. 177
Delaware, Lackawanna & Western RR. Co 249, 411
East Pennsylvania RR. Co..... 177
Elmira & Willamsport RR. Co.....249, 468
Huntingdon & Broad Top Mountain RR. Co.....87, 249
Ithaca & Athens RR. Co..... 468
Lackawanna & Bloomsburg RR. Co... 177
Lehigh Valley RR. Co.....87, 177, 393
Little Schuylkill RR. Co..... 249
Mahoning Coal & RR. Co..... 32
Mahanoy & Broad Top Mountain RR. Co..... 32
Morris & Essex RR. Co.....32, 87, 411
New Jersey Central RR. Co..... 320
New Jersey RR. and Transportation Co..... 249
Northern Central RR. Co.....14, 468
North Pennsylvania RR. Co.....321, 468
Oil Creek & Alleghany River RR. Co..... 249
Oswego & Syracuse RR. Co..... 320
Pennsylvania & Delaware RR. Co..... 177
Pennsylvania RR. Co., 14, 87, 177, 249, 393, 468
Perkiomen RR. Co..... 14
Philadelphia & Erie RR. Co..... 249
Philadelphia & Reading RR. Co., 14, 249, 393
Piedmont RR. Co..... 249
Reading RR. Co..... 468
Rensselaer & Saratoga RR. Co..... 320
Rome, Watertown & Ogdensburg RR. Co..... 249
Schenectady & Duanesburg RR. Co.... 177
Scioto & Hocking Valley RR. Co..... 321
Scioto Valley RR. Co..... 32
Shamokin Valley & Pottsville RR. Co.. 468
St. Louis, Iron Mountain & So. RR. Co.. ..... 87, 320, 411
Tennessee Coal and RR. Co..... 411
Union & Titusville RR. Co..... 469
United New Jersey Railroads 248
Western Pennsylvania RR. Co..... 268

MISCELLANEOUS.

American Coal Co..... 177
Am. Dock and Improvement Co..... 32
Baring Cross Bridge Co..... 411
Block House Mine Co..... 32
Buffalo Iron-Works..... 320
Cameron Coal Co..... 177
Cannelton Coal Co..... 32
Chesapeake & Delaware Canal Co..14, 468
Chesapeake & Ohio Canal 249
Consolidation Coal Co..... 32, 87
Cumberland Coal and Iron Co..... 32
Dale Coal Co..... 32
Delaware & Hudson Canal Co. 32, 249, 320
Delaware & Raritan Canal Co.....87, 321
Delaware Division Canal..... 468
Detroit Water-Works..... 87
Dunbar Iron Co..... 411
Eureka Coal Co 32
Himrod Furnace Co..... 177
Holliday Coal Co..... 32
Indianapolis City Water-Works..... 87
James River & Kanawha Canal Co.... 321
Joliet Iron and Steel Co.....87, 320
Kemble Coal and Iron Co..... 177
Lehigh & Wilkes-Barre Coal Co..... 320
Lehigh Coal and Navigation Co., 87, 177, 249, 393
Lehigh Navigation Co..... 468
Louisville Water Co..... 87
Maple Grove Coal Co..... 32
Marseilles Land and Water Co..... 87
Milwaukee Iron Co 32, 320, 411
Monongahela Navigation Co..... 32
Morris Canal and Banking Co..... 249
Muskegon Water-Works 87
Oxford Iron-Works..... 249
Pennsylvania & New York Canal Co... 393
Pennsylvania Canal Co..... 468
Pennsylvania Coal Co..... 87
Peytona Cannel Coal Co..... 32
Reading Coal and Iron Co.....249, 468
Richmond Iron Co 320
Rock Island Water-Works..... 87
Rockland Nickel Mining Co..... 411
Saltsburg Coal Co.....14, 468
Schuylkill Navigation Co.....321, 468
Shamokin Coal Co..... 32
Shickshinny Coal and Iron Co..... 321
Straitsville Cannel Coal Co..... 177
Susquehanna Canal..... 468
Susquehanna Coal Co.....32, 468
Swedes Iron Co..... 32
Thomas Iron Co..... 32
Union Iron Co.....177, 320
Vulcan Iron-Works.....87, 249
West Jersey Marl and Transportation Co..... 468
Wheeling Iron and Nail Works..... 177
Wilmington Coal and Manufacturing Co 320

DIVIDENDS.

GAS STOCKS.

Boston Gas Co..... 179
Brookline Gas Co., Mass..... 15
Capital Gas Co. of Sacramento, Cal.... 34
Charlestown Gas Co., Mass..... 87
Citizens' Gas Co., Brooklyn..... 15
Dorchester Gas Co., Mass..... 87
East Boston Gas Co., Mass..... 15
Harlem Gas Co., N. Y..... 87
Jamaica Plain Gas Co., Mass..... 87
Lawrence Gas Co., Mass..... 87
Malden and Melrose Gas Co., Mass.... 87
Metropolitan Gas Co..... 105
Montreal Gas Co..... 197
Mutual Gas Co., New York.....15, 87
Nassau Gas Co., Brooklyn, N. Y..... 15
Newtown and Watertown Gas Co., Mass..... 87
Quebec Gas Co..... 143
Salem Gas Co., Mass..... 87
South Boston Gas Co., Mass..... 87
Williamsburg Gas Co., N.Y. 15, 34
Wilmington Coal Gas Co..... 105

GOLD, SILVER, AND COPPER STOCKS.

American Consolidated Mining Co..... 89
American Gold Mining Co., Colo., 15, 179, 197
Bald Mountain Gravel Mining Co., Cal. 470
Bodie Gold Mining Co., Cal.....144, 234
California Gold and Silver Mining Co., 15, 107
Calumet & Hecla Copper Mining Co., 143, 287
Centennial Mining Co..... 378
Consolidated Amador Mining Co....71, 453
Consolidated Bobtail Gold Mining Co.. 342
Duncan Silver Mining Co..... 143
Empire Gold Mining Co., Cal.....305, 377
Eureka Consolidated Gold, Silver, and Lead Mining Co..... .53, 216, 396, 470
Eureka (G. V.) Mine..... 288
Excelsior Water and Mining Co.....53, 396
Golden Star, Ariz..... 453
Hukill Gold and Silver Mining Co., Col., 15, 89, 179, 251, 341, 413
Idaho Grass Valley Gold Mining Co., Cal..... .....53, 144, 378, 453
Independence Mining Co., Nev., 71, 144, 359, 378
Indian Queen Mining Co..... 470
International Silver Mining Co..... 143
Leeds Mining Co..... 216
Napa Consolidated Mining Co..... 144
New York Hill Mine..... 342
Ontario Silver Mining Co., Utah, 15, 107, 179, 251, 341, 413
Plumas National Quartz Mining Co., Cal.....15, 89, 179, 251, 341 413
Reddington Quicksilver Mine, Cal..125, 162

Silver King Mining Co.....180, 323
South Standard Mining Co..... 180
Standard Mining Co., Cal., 125, 144, 216, 234, 288
Toquerville Mining Co..... 396
United Companies of New Jersey..... 450

RAILROAD STOCKS.

Baltimore & Ohio RR. Co..... 266
Camden & Amboy RR. Co..... 249
Camden & Atlantic RR. Co..... 249
Cayuga & Susquehanna RR. Co..... 14
Elmira & Williamsport RR. Co..... 468
East Mahanoy RR. Co..... 468
East Pennsylvania RR. Co..... 468
Harrisburg, Portsmouth, Mount Joy & Lancaster RR. Co..... 468
Lehigh Valley RR. Co.....197, 249, 468
Little Schuylkill RR. Co..... 468
Minehill RR. Co..... 468
Mill Creek & Minehill RR. Co..... 468
Mount Carbon & Port Carbon RR. Co... 468
North Pennsylvania RR. Co..... 52, 468
Schuylkill Valley Navigation and RR. Co..... 468
United New Jersey RR. and Canal Co.. 213
United Railroads of New Jersey..... 450

MISCELLANEOUS STOCKS.

Atlantic Giant Powder Co..... 305
Barclay Coal Co..... 177
Buck Mountain Coal Co..... 468
California Powder Works Co..... 305
Cambria Iron Co..... 249
Diamond Coal Co..... 249, 468
Excelsior Water Co..... 305
Fulton Coal Co..... 468
George's Creek Coal and Iron Co..... 70
Giant Powder Co..... 305
Locust Gap Improvement Co..... 468
Mount Farm Coal and Oil Co..... 231
National Tube Works Co..... 231
Nescopec Coal Co.....249, 468
Northern Liberties Gas Co..... 468
Pennsylvania Salt Manufacturing Co., 249, 266
Pennsylvania Steel Co..... 249
Schuylkill Navigation Co.....70, 468
United Companies of New Jersey..... 468
Westmoreland Coal Co..... 249

GAS COMPANIES.

Adoption of Petroleum Gas in Frederick, Md..... 15
Akron (O.) Gas Troubles.....71, 125, 375
Albany Gas Contract..... 267
Assessability of Gas-Works Property in Canada..... 125
Assessing Brooklyn Gas Companies... 52
Assessing Scrip Certificates..... 34
Atlanta, Ga..... 87
Atlantic City, N. J..... 52
Automatic Gas-Lamp Co., Brooklyn... 413
Baltimore Gas Co.....341, 357, 413
Barrie Gas Co., Ont..... 287
Bedford, Pa..... 197
Bellefontaine, O..... 197
Boston Gas Co 249, 287, 303
Brooklyn Automatic Gas-Lamp Co.... 413
Brooklyn Gas Co.....34, 105
Brooklyn (N. Y.) Gas Question..... 393
Brush Electric Light..... 357
Cambridge Gas Co..... 249
Camden Gas Co., N. J..... 287
Camden (N. J.) Gas Contract..... 161
Chicago, Electric Light in..... 321
Chicago Gas Co..... 413
Chicago Gas Question.....249, 450
Cincinnati Gas-Bill..... 450
Cincinnati Gasoline Contract..... 393
Cincinnati, Lighting the Streets of.... 52
Cincinnati, Public Lighting in..... 341
Citizens' Gas Co., Brooklyn, N. Y...52, 197
Citizens' Gas Co., Frederick, Md..... 215
Citizens' Gas Co., Poughkeepsie, N. Y. 231
Citizens' Gas Co., St. Joseph, Mo..... 87
Citizens' Gas-Works, Harrisburg..... 303
Cleveland Gas-Light and Coke Co..... 45
Columbus (O.) Gas Question.....375, 427
Consolidated Gas Co., Pittsburg..... 197
Curtailment of the Use of Gas at Cincinnati..... 105
Denver (Colo.) Gas Appropriations for 1879..... 468
Detroit Gas Question..... 15
Dorchester Gas Co..... 249
Eastern Gas Stocks..... 249
East Liverpool Gas Co., O..... 231
East Saginaw Gas Co..... 413
Edison Electric Light..... 321
Edison Electric Light Co..... 285
Edison Light, Professor Barker on .. 357
Electric Light..... 303
Electric Light Abroad..... 357
Electric Light, A New..... 321
Electric Light applied to the Bicycle.. 339
Electric-Light Beacon at Baltimore... 357
Electric Light in Agriculture..... 231
Electric Light in Europe..... 341
Electric Light in New York City Parks. 215
Electric Light, Novel Plan for Displaying..... 177
Electrical Lighting Co..... 105
Electrical Meter..... 303
Elizabeth, N. J., the Gas Question in, 34
English Gas Shares..... 413
Erie Gas-Wells, Pa..... 143
Fostoria Gas Co., O..... 357
Frederick, Md., Gas at..... 357
Gas at Allegheny City, Pa..... 105
Gas, Cost of Making..... 197
Gasoline in Long Island City, N. Y.... 357
Gas Questions in Brooklyn, Astoria, and Long Island City..... 105
Gas Troubles in Indianapolis, Ind..... 105
Gas *vs.* Electricity..... 285
Gas-Well, a Wonderful..... 15
Gas-Works, Neenah, Wis..... 105
Gas-Works, New, at Richmond, Pa.... 125
Great Britain, Gas Stocks in..... 339
Guelph, Ontario 70
Halifax Gas Co., N. S..... 341
Hamilton (O.) Gas Difficulty 15, 179
Harlem Gas Co., New York.....197, 393
Hoboken, N. J..... 231
Illinois Companies, Assessed Valuation of..... 267
Isabella Gas Co., Frederick, Md..... 249
Jamaica Plain Gas Co., Mass... ..249, 287
Jersey City Gas Co.....339, 468
Kansas City, Mo., Cheap Gas for..... 71
Kansas City (Mo.) Gas Question..... 125
Lawrence Felting Co., Millville, Mass.. 357
Lighting the Brooklyn Streets 34
Lighting the Capitol at Albany by Electricity..... 357
Lighting the Streets of Stuart, Iowa... 15
London Gas Panic..... 287
London, Prices of Gas in 52
Lowe Gas Process in Bedford, Pa..... 15
Machines for Making Gas from Resin 267
Manhattan Gas Co., New York....287, 450
Metropolitan Gas Co., N. Y., 15, 34, 52, 468
Millville (Mass.) Gas House at..... 357
Milwaukee Gas Co..... 105
Montgomery Gas Co., Ala..... 267
Montreal, Can..... 450
Montreal Gas Co.....303, 357
Montreal Gas Stocks..... 287
Municipal Gas Co., New York..... 339
Municipal Gas Monopoly in Phila..... 70
Mutual Gas Co., New York (Mortgage) 321, 357, 393, 468
Napanee (Ont.) Gas Co..... 52
Napanee Gas-Works, Ont.....125, 231
Naphtha Gas..... 197
Nassau Gas Co., Brooklyn 34, 52, 393
Natural Gas for Manufacturing Lamp Black..... 231
New Albany, Ind., Reducing the Price of Gas at..... 143
New City Gas Co., Montreal..... 249
Nevada City 249
New Mutual Gas Co., Brooklyn..... 375
New York and Jersey City Companies. 87
New York Gas Co.....52, 287
New York, Lighting the Streets of. 179
Oswego, N. Y..... 143
Pacific Coast Gas Stocks..... 249
People's Gas Co., Baltimore .287, 341, 357
People's Gas Co., Brooklyn.52, 197, 285, 375
People's Gas Light and Coke Co., Chicago.....143, 197
Peoria (Ill.) Gas Question.....197
Petroleum Gas Works at Frederick, Md..... 125
Philadelphia Gas Employés, Proposed Wages Reduction of..... 52
Pittsburg Gas Question..... 87
Portsmouth, O..... 197
Providence Gas Companies, Amalgamation of..... 177
Quebec, Canada..... 71
Reductions in the Price of Gas Abroad. 215
Richmond (Va.) Gas Co. (Annual Report)..... 52
Rio de Janeiro, Proposals for Illuminating..... 266
Sacramento Gas Co..... 267
Salt Lake, Utah..... 393
San Francisco Gas Co., 266, 341, 357, 375, 450, 468
San Francisco, Gas Question in, 87, 105, 321, 393
San José (Cal.) Gas War..... .....34, 52
Scrip Certificates, Williamsburg (N. Y.), Taxation of 427
Schukert's Dynamo-Electric Machine.. 357
Self-Lighting Gas-Burner..... 427
South Framingham (Mass.) Gas Question 87
St. Joseph, Mo..... 197
St. Louis Gas Companies..... 197
St. Louis Gas Co., Annual Report..... 143
St. Louis Gas Troubles..... 413
Sullivan, Ind 125
Taxation of Scrip Certificates, Williamsburg, N. Y..... 427
Washington Gas Co 215
Washington (D. C.) Gas Question..... 71
Waterloo, Iowa..... 105
Waterloo Gas Works, Iowa..... 15
Wheeling, W. Va 197
Wichita, Kan..... 105
Wilkes-Barre (Pa.) Gas Question..... 52
Williamsburg Gas Co.....52, 70, 468
Williamsburg (N. Y.) Gas Co.'s Scrip Certificates, Taxation of..... 427
Williamsport (Pa.) Gas Works..... 87
Winnemucca, Nev..... 427

INCORPORATIONS—NEW.

Adalante Blue Gravel Mining Co., Cal.. 414
Addenda Mining Co., Cal..... 234
Adriatic Mining Co., Nev..... 414
Albert, the, Brick, Lime, and Cement Co., N. S..... 323
Alta Mining Co, Cal..... 323
Alpha Hydraulic Mining Co..... 323
Ajax Mining Co., Cal..... 234
American Cast-Steel Co., O..... 71
Amador Gravel Mining Co., Cal..... 323
American Mining Co., Nev..... 414
Apache Mining Co., Ariz..... 414
Arizona Consolidated Mining Co., Ariz. 414
Azure King Mining Co., Ariz..... 323
Beaconsfield Mining Co., Cal..... 234
Blue Bell Copper Mining Co., Nev 323
Black Jack Mining Co..... 71
Blue Jacket Mining Co., Nev..... 234
Bodie Hydraulic Mining and Water Co., Cal..... 234
Bodie Leon Mining Co., Cal..... 323
Bonanza Blue Gravel Mining Co., Cal.. 71
Booker Consolidated Mining Co., Cal.. 234
Box Elder Silver Mining Co., Ariz..... 71
Bright Star Gold Mining Co. 323
Brown Monster Mining Co., Cal..... 323
Bulletin Mining Co, Cal..... 323
Bunker Hill Mining Co., Cal..... 234
Butte Hydraulic Mining Co., Cal..... 414
Cabinet Consolidated Mining Co., Cal.. 414
Caledonia Mining Co., Mont..... 234
California Consolidated Mining Co., Nev..... 234
California Gold Mining Co., Cal..... 180
Cameron Mining Co., Cal..... 323
Central Gold Mining Co., Cal.. 414
Charter Oak Mining Co., Cal..... 323
Chatauqua and San Juan Mining Co., Colo..... 234
Chief of the Hill Tunnel Co., Cal..... 323
Collision Mining Co., Nev..... 234
Columbia Mining Co., Nev..... 234
Consolidated Astor Mining Co., Nev... 323
Consolidated Blue Gravel Mining Co., Cal..... 71
Consolidated Dorado Mining Co., Cal... 71
Consolidated Pacific Mining Co., Cal... 180
Consolidated Superior Mining Co., Nev. 323
Crescent Gold and Silver Mining Co., Cal.....71, 234
Crœsus Gold and Silver Mining Co., Cal..... 180
Curtis Consolidated Mining Co., Nev... 234
Deadwood Mining Co., Dak..... 323
Defiance Gold Mining Co., Cal..... 180
Don Quixote Gold Mining Co., Cal..... 180
Dudley Mining Co., Cal..... 234
Empire Consolidated Mill and Mining Co., Cal..... 323
Empire Ditch and Placer Mining Co., Colo..... 71
Engelke Gold and Silver Mining Co., Cal..... 323
Esmeralda Mining Co., Nev..... 180
Etna Coal and Salt Co., W. Va..... 323
Eureka Consolidated Blue Gravel Mining Co., Cal..... 234
Fairfax Mining Co., Nev..... .....234, 323
Fairmount Mill and Mining Co., Nev... 323
Favorite Gold and Silver Mining Co., Cal..... 234
Flagstaff Gold and Silver Mining Co., Arizona..... 323
Flowery Mining Co., Nev..... .....234, 323
Folson Gold Mining Co., Cal..... 71
Ford Consolidated Gold and Silver Mining Co., Colo..... 71
Franklin Mining Co., Ariz.....71, 414
Gagneri Mining Co., Ariz..... 71
Garber Mining Co., Cal..... 323
Germania Mining Co., Nev..... 234
Giant and Old Abe Mining Co., Dak.... 323
Gibbonsville Gold Mining Co., Cal 180
Golconda Gold Mining Co., Cal..... 234
Golden Gate Mining Co., Cal..... 234
Gray's Peak Mill and Mining Co., Ariz. 414
Great Hope Mining Co., Colo..... 470
Happy Blue Gravel Mining Co., Cal.... 414
Hayes Gold and Silver Mining Co., Ariz..... 234
Harrison Mining Co., Nev..... 414
Headlight Mining Co., Cal..... 234
Heart Basin Mining Co., Wyoming..... 414
Hercules Mining Co., Cal..... 414
Highbridge Silver Mining Co., Nev..... 180
Highland Mining Co., Dak..... 323
Humboldt Mining Co., Cal..... 234
Indicator Mining Co., Cal..... 323
Iowa Quartz Mining and Milling Co., Cal..... 71
Iron-Clad Con. Mill and Mining Co., Cal..... 414
J. Baldwin Mining and Reduction Co., Colo..... 180
Jersey Mining Co., Nev..... 180
Jupiter Mining Co., Cal..... 323
Keating Mining Co., Nev 323
Kenton Mining Co., Cal..... 414
Lady Alice Tunnel and Mining Co., Cal. 234
Lady Bryan Mining Co., Nev..... 71
Lake View Mining Co., Cal..... 414
Last Resort Mining Co., Cal..... 180
Lee Mining and Smelting Co., Colo.... 180
Liberty Mining Co., Nev..... 414
Lone Ridge Gravel Mining Co., Cal. 180
Lord & Robinson Mining Co., Cal..... 323
Lord Beaconsfield Mining Co., Cal..... 414
Mackey Mining Co., Nev..... 234
Magnolia Gold Mining Co., Mont..... 71
Mammoth Bar Gold Mining Co., Cal... 71
Mammoth Gulch Placer Co., Colo..... 71
Marietta Mining Co., Nev..... 323
Mary Ann Mining Co., Nev..... 323
Mary Consolidated Mining Co., Cal.... 414
Maryland Mining Co., Cal..... 323
May Bean Mining Co., Ariz 414
May Belle Mining Co., Cal..... 234
Middle Hill Mining Co., Nev..... 234
Mills Tunnel, Mining, and Ore-Reducing Co., Colo..... 234
Mineral Belt Tunnel and Mining Co., Dakota..... 414
Mono and Cross Consolidated Mining Co., Cal 180
Montana Mining Co., Cal..... 234
Monte Aquacata Mining Co., Cal..... 180
Mountain Silver Mining Co., Nev..... 323
Mount Blanc Consolidated Gravel Mining Co., Cal..... 180
Mount Rose Mill and Mining Co., Nev.. 323
Nevada and Arizona Mining and Transportation Co..... 71
Nevada City Mining Co., Cal..... 323
Nevada County Mining Association, Cal..... 323
Niagara Cons. Gold and Silver Mining Co., Cal..... 414
Nob Hill Mining Co., Ariz..... 470
North Bonanza Mining Co., Nev...234, 323
North Consolidated California Mining Co., Nev..... 234
North Fork Gold Mining Co., Cal..... 180
North Gould & Curry Mining Co., Nev. 323
North Keystone Mining Co., Nev..... 323
North Noonday Mining Co , Cal..... 414
North Scorpion Mining Co., Nev. 234
North Sigourney Con. Mining Co. Cal. 414
North Union Mining Co. Nev..... 323
North Utah Mining Co., Nev..... 234
Numa Mining Co..... 323
Oakland Consolidated Gold and Silver Mining Co., Cal..... 323, 414
Old Dan Gold and Silver Mining Co., Cal..... 180
Ophir Mining Co., Ariz..... 414
Orient Mining Co., Cal 234
Owyhee Mining Co., Idaho..... 323
Pemberton Mining Co., Cal..... 323
Pioneer Mining Co., Nev..... 323
Pittsburg Coal and Dock Co., W. Va... 71
Prince & Davis Mining Co., Cal..... 71
Prince of Wales Copper Mining Co., Alaska..... 234
Princetown Mariposa Mining Co., Cal.. 414
Quartz Mt. Gold Mining and Tunnel Co., Cal..... 180
Queen Bee Mining Co., Cal..... 180
Red Jacket Consolidated Mining Co., Nev..... 323
R. E. Lee Tunnel and Mining Co., Cal.. 180
Relief Consolidated Mining Co., Cal... 234
Reno Mining Co., Cal..... 323
Republic Consolidated Mining Co., Cal. 234
Resolute Tunnel and Mining Co., Cal.. 234
Revenue Mining Co..... 71
Riqueza Mining Co., Cal..... 234
Rocky Mountain Mica Co., Colo..... 71
Rose Quartz Gold Mining Co., Cal..... 414
Rough and Ready Consolidated Mining Co., Cal..... 323
Russian Gold and Silver Mining Co., Cal..... 234
Rustler Mining Co., Cal..... 234
Saltiel Mica and Porcelain Co., Colo... 71
San Juan Central Mining Co., Colo.... 180
San Pedro Mining Co., Ariz.....234, 323
Santa Mina Mining Co., Cal..... 323
Santiago Gold Mining Co., Cal..... 414
Senator Mining Co., Nev..... 180
Silver Hill Tunnel and Mining Co., Cal. 414
Shawmut Gold Quartz Mining Co., Cal. 414
Sherwood Mining Co., Nev..... 234
Smith Gold Mining Co., Cal..... 71
Sophia Gravel Mining Co., Cal..... 180
South Belvidere Gold and Silver Mining Co., Cal.....323, 414
South Bodie Mining Co., Cal..... 180
South Bulwer Mining Co., Cal..... 234
South Comstock Consolidated Mining Co., Nev..... 180
South Lady Byron Mining Co., Nev.... 414
South Potosi Mining Co., Nev..... 234
Staatsburg Mining Co., Colo..... 180
Sultan Hill Mining Co., Cal..... 323
Thornton Mining Co., Nev..... 323
The Three Brothers Mining Co., Cal... 234
Tiger Gold and Silver Mining Co., Nev. 323
True Blue Gold and Silver Mining Co.. 234
True Blue Mining Co., Cal..... 323
Twin Lakes Metallurgic Co., Colo..... 234
Uncle Sam Mining Co., Ariz..... 414
Uncle Sam Mining Co., Nev..... 323
Union Quartz Mining Co., Cal..... 234
Union West Mining Co., Ariz..... 71
United Quartz Mining Co., Cal..... 414
University Gold and Silver Mining Co., Cal 234
Wales Consolidated Gold and Silver Mining Co., Nev..... 414
Walker Mill Mining Co., Cal..... 470
Warren Water-Works Co., Ohio..... 323
Warsaw Mining Co., Nev..... 323
Welsh Coal Co., Colo..... 180
Western Mining Co., Ariz..... 414
Wind-up Gravel Mining Co., Cal..... 180

MISCELLANEOUS STOCKS.

American Dock and Improvement Co.. 249
Boston Coal Road, New..... 87
Consolidated Coal Co.....392, 411
Delaware & Hudson Canal Co., 14, 32, 50, 70, 87, 105, 123, 141, 159, 177, 195, 213, 231, 249, 266, 285, 303, 320, 339, 356, 374, 392, 411, 427, 449, 467
Delaware Division Canal Co..... 14
Lehigh & Wilkes-Barre Coal Co..... 249
Lehigh Coal and Navigation Co., 15, 32, 52, 70, 87, 105, 141, 161, 177, 215, 249, 266, 285, 303, 320, 339, 356, 374, 392, 413, 427, 450, 468
Lake Superior Iron Co..... 411
Passaic Zinc Co..... 411
Pennsylvania Coal Co.....14, 141, 411, 427
Pratt Coal and Coke Co..... 177

RAILROAD STOCKS.

Atchison, Topeka & Santa Fé RR. Co.. 32
Baltimore & Ohio RR. Co..... 450
Bell's Gap RR., Pa..... 161
Bell's Mills & Lloydsville RR..... 177
Bradford & Mount Pleasant RR..... 161
Chesapeake & Ohio RR. Co..... 14
Chicago & Eastern Illinois RR..... 159
Delaware, Lackawanna & Western RR. Co., 14, 32, 50, 70, 87, 105, 125, 141, 159, 177, 195-7, 213, 231, 249, 266, 285, 303, 320, 339, 356, 374, 392, 411, 427, 450, 468
Denver & Rio Grande RR Co..... 32
Geneva & Lyons RR..... 141
High Bridge RR Co..... 249
Kansas City, Eureka & Santa Fé RR. Co..... 32
Lehigh Valley RR Co., 15, 32, 52, 70, 87, 105, 141, 161, 177, 215, 249, 266, 285, 303, 320, 339, 356, 374, 392, 413, 427, 450, 468
Longwood Valley RR. Co..... 249
Morris & Essex RR. Co..... 427
New Jersey Central RR. Co., 14, 32, 50, 70, 87, 105, 125, 141, 159, 177, 195, 213, 231, 249, 266, 285, 303, 320, 339, 356, 374, 392, 411, 427, 450, 468
New Jersey West Line RR..... 141
New York & Long Branch RR. Co..... 249
Pennsylvania RR. Co., 14, 32, 52, 70, 87, 105, 141, 161, 177, 197, 215, 231, 249, 266, 285, 303, 320, 339, 356, 392, 413, 427, 450, 468
Philadelphia & Reading RR. Co., 14, 32, 52, 70, 87, 105, 141, 161, 177, 215, 231, 249, 266, 285, 303, 320, 339, 356, 374, 392, 413, 427, 450, 468
Railroad to the Kentucky Coal Mines.. 141
Salisbury RR..... 141
Syracuse, Binghamton & New York RR. Co..... 392